

ROYAL ARCHITECTURAL INSTITUTE OF CANADA JOURNAL



MARCH 1960

ROYAL ARCHITECTURAL INSTITUTE OF CANADA

INSTITUT ROYAL D'ARCHITECTURE DU CANADA

Of classic simplicity and beauty, the new office building of the Prudential Assurance Company Limited of England will enjoy complete Climate Control—thanks to a Trane CenTraVac, with low-pressure UniTrane in each office. Prudential staff and tenants alike will enjoy freedom from heat and humidity even on the hottest days! To achieve year 'round comfort in your next building, ask your architect or consulting engineer to specify TRANE air conditioning and heating equipment. Ask them, too, about modernizing the system in your present building, or write direct to:

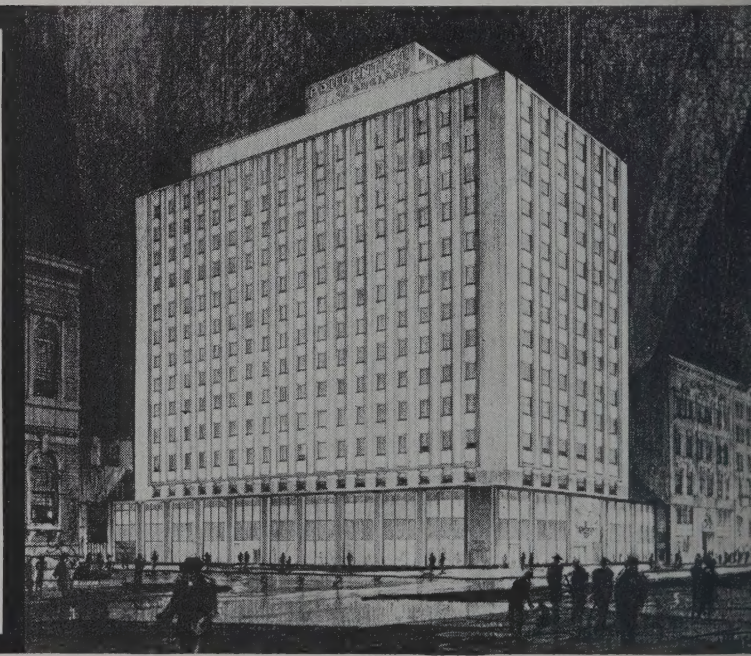
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**COMPANY OF
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Manufacturers of equipment for air conditioning, heating & ventilating

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WORKING COMFORT
IN NEW
MONTREAL
INSURANCE CENTRE!**

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NEW HEAD OFFICE BUILDING,
PRUDENTIAL ASSURANCE COMPANY LIMITED OF ENGLAND
465 ST. JOHN STREET, MONTREAL, QUEBEC

Architects & Engineers:

Barott, Marshall, Merrett & Barott

General Contractor:

Anglin Norcross Corp. Ltd.—Montreal

Mechanical Contractor:

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WINDOWS



Durability and distinction — essential elements in fine architecture

*National Revenue Bldg.
Montreal*

*Architects:
Lawson, Betts & Cash
Montreal*

Architects Lawson, Betts and Cash approved CLERK Curtain Wall for Montreal's distinguished National Revenue Building. The operating portions of the Curtain Wall are CLERK counterbalanced double hung aluminum windows—1278 in all—each opening and closing at fingertip pressure and each reversing for safe, easy cleaning from inside the building.

Dependable CLERK products are being chosen for fine buildings from coast to coast. Leading architects know they are designed in Canada to suit the Canadian climate and require no maintenance save routine washing.

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A DEAD-LEVEL ROOF WITH "SUPERIOR BOND" ASSURED



Johns-Manville *Aquadam* Built-Up Roofs pay off in longer roof life and maximum protection

AQUADAM ROOFS take their name from a superior cementing agent developed by Johns-Manville. This unique bitumen, Aquadam, possesses the best features of coal tar pitch and of asphalt without their weaknesses. It is the best bitumen on the market for roofs with inclines from dead-level to $\frac{1}{2}$ inch per foot. It is used for both smooth-surfaced asbestos roofs and gravel- or slag-surfaced roofs.

The picture above shows how Aqua-

dam spreads, wets and saturates the roofing felts uniformly. And, as the felts are mopped and broomed-in, the exceptional adhesiveness of Aquadam assures a thorough bonding together of the plies.

Besides this "superior bond," an Aquadam roof provides these other advantages: excellent self-healing properties; exceptional ability to expand and contract with normal deck movement; ability to withstand water

when a downpour floods the roof; and proven weather resistance under wide-ranging climatic conditions.

To give your clients the best roof protection, specify Johns-Manville Aquadam Built-Up Roofs—and be sure. For a copy of booklet "J-M Aquadam Built-Up Roofs" write to: Dept. BA, Canadian Johns-Manville, 565 Lakeshore Road East, Port Credit, Ontario. Ask for BU-79A.

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MONTREAL — QUEBEC — OTTAWA

Tests prove

THINLITE

Prefabricated Curtain Wall resists the onslaught of wind and water

THINLITE is a completely weatherproof curtain wall system designed and factory-prefabricated to anticipate all weather conditions.

These are the features that make THINLITE able to withstand driving rain and freezing cold (see details at left and bottom):

- ① The system is double-gasketed throughout with long-lasting Neoprene. No field caulking is required except at building connections.
- ② Only two inches *thin*, hollow glass tiles have the insulation value of double glazing and prevent condensation during cold weather.

③ Factory-controlled fabrication insures joints of uniform quality and density in the installation.

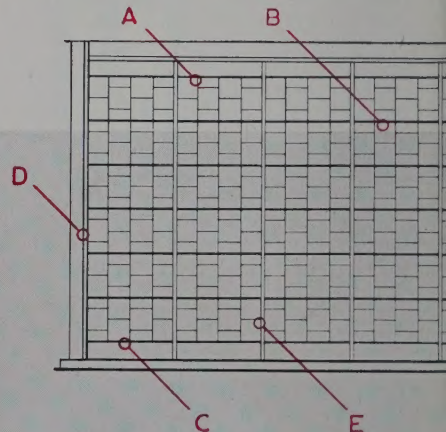
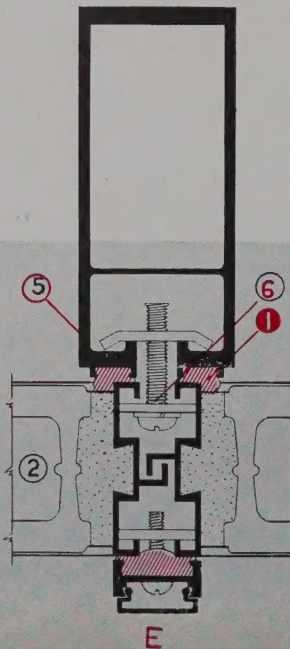
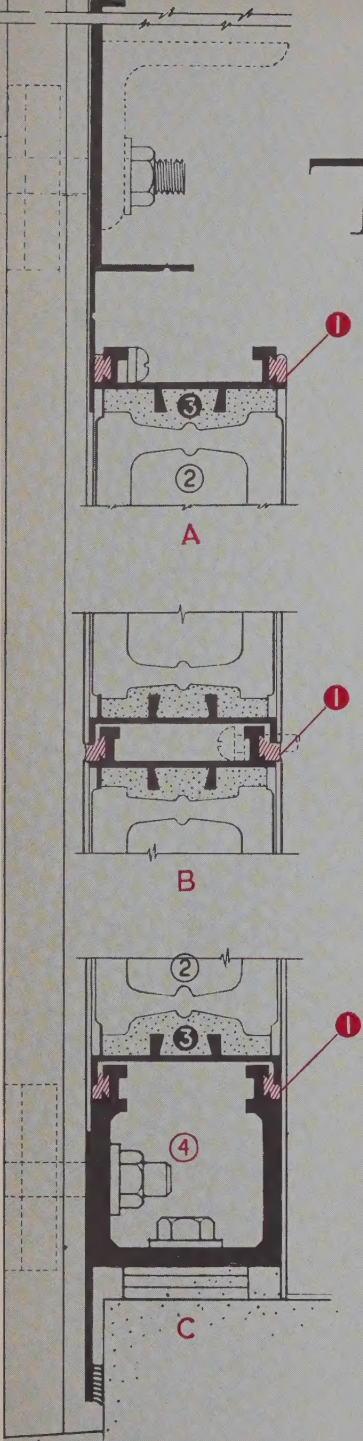
④ Built-in guttering handles any condensation which may accumulate in the system during cold weather.

⑤ Minimum of through-metal. For example, struts are insulated by Neoprene gaskets to prevent condensation on room side of wall.

⑥ Retaining bolts draw panels tightly against vertical strut.

For complete details of THINLITE's superior construction features, write to Owens-Illinois Inter-America Corp. Dept. JR-3, Toledo 1, Ohio, or

Pilkington Glass, Ltd., Branches across Canada; Consolidated Glass Industries, Ltd., and Branches; Consolidated Plate Glass (Western) Ltd., Winnipeg; Bogardus, Wilson, Ltd., Vancouver.





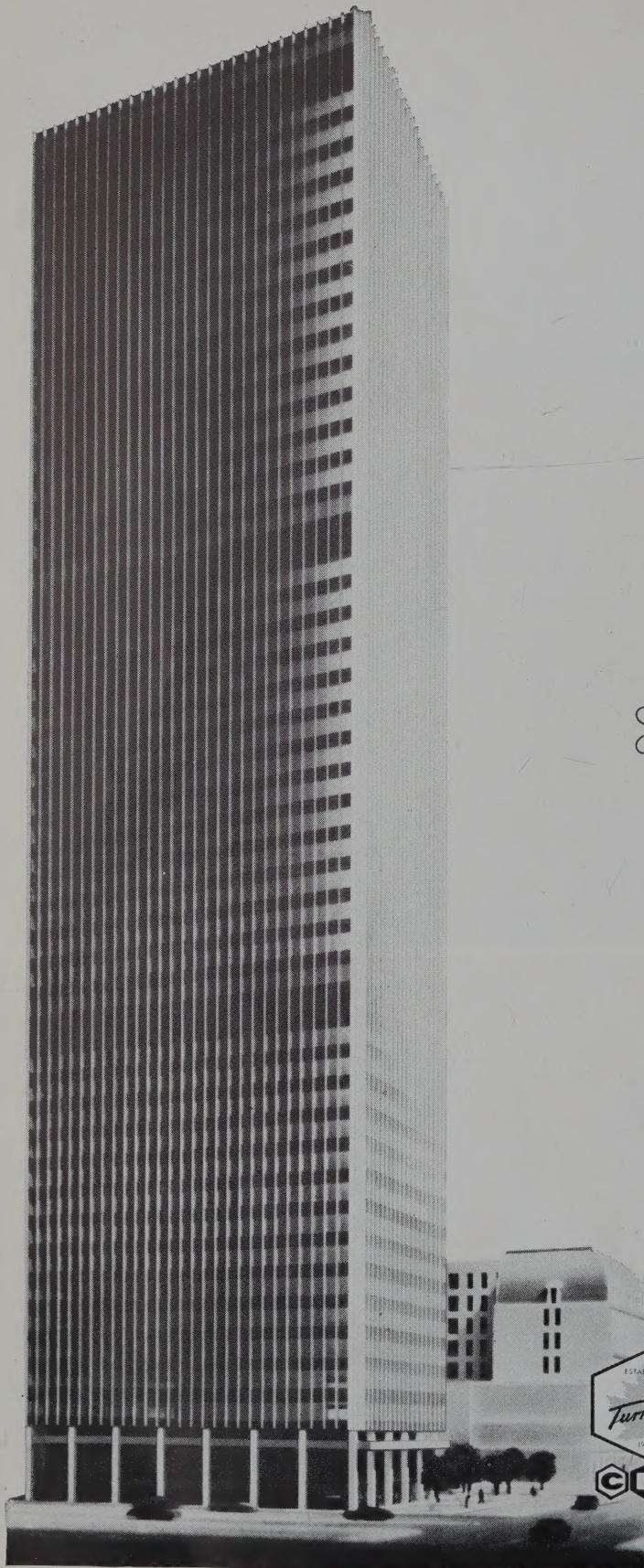
Aircraft engine hurls gallons of water against THINLITE wall at near-hurricane velocity in weather-resistance test.



THINLITE Curtain Wall offers unlimited design possibilities with variety of color and material.

THINLITE CURTAIN WALL
AN **I** PRODUCT

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GENERAL OFFICES • TOLEDO 1, OHIO



*The Canadian Bank of Commerce Building, Montreal:
Outstanding Structure in the New Windsor Plaza
Development, 43 storeys, 600 feet above street level.*

*Architects: Peter Dickinson Associates, Toronto
General Contractors: Perini Limited*



TURNBULL ANNOUNCES ANOTHER OUTSTANDING ELEVATOR INSTALLATION

Turnbull Elevator announces their order to provide the elevator system for the new 43 storey Canadian Bank of Commerce building in Montreal. Fifteen high speed, fully automatic, self-serve elevators will be installed to form the balanced transportation system. They will handle the many variations in the diversified traffic requirements of a building population of over 4,000 people.

Turnbull installations are found in an increasing number of Canada's finest buildings regardless of size or function.



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HEAD OFFICE - TORONTO

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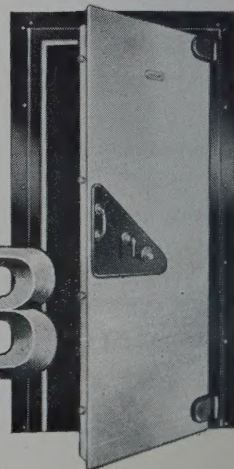
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in addition to the daily task of producing one of the most extensive lines of building materials in Canada, **MURRAY-BRANTFORD** is working continuously on the development of new ideas, (such as the Built-Up-Roofing Slide Selector) better service and improved products through its active research and development programs.



THE MARK OF LEADERSHIP IN BUILDING MATERIALS

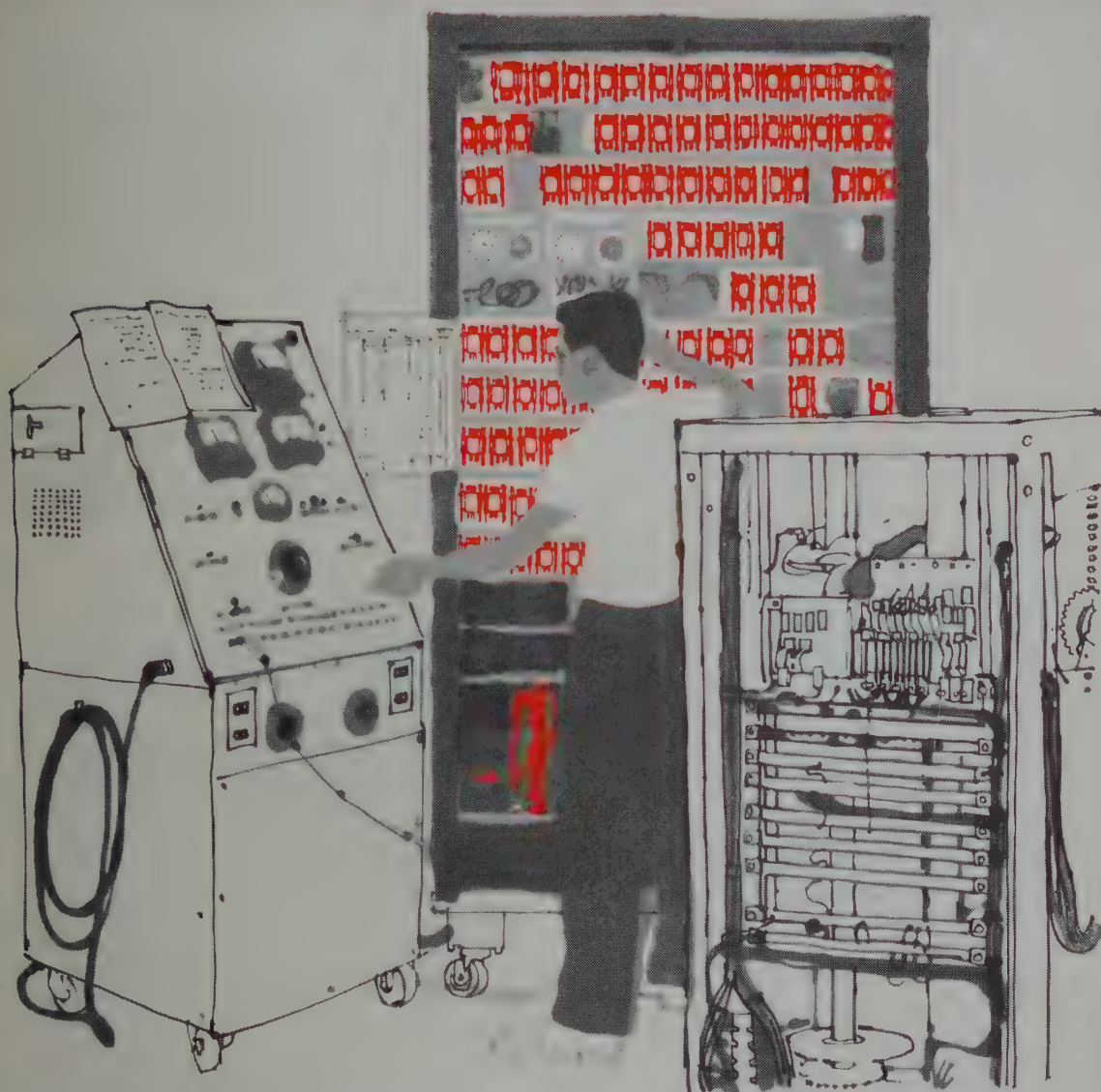
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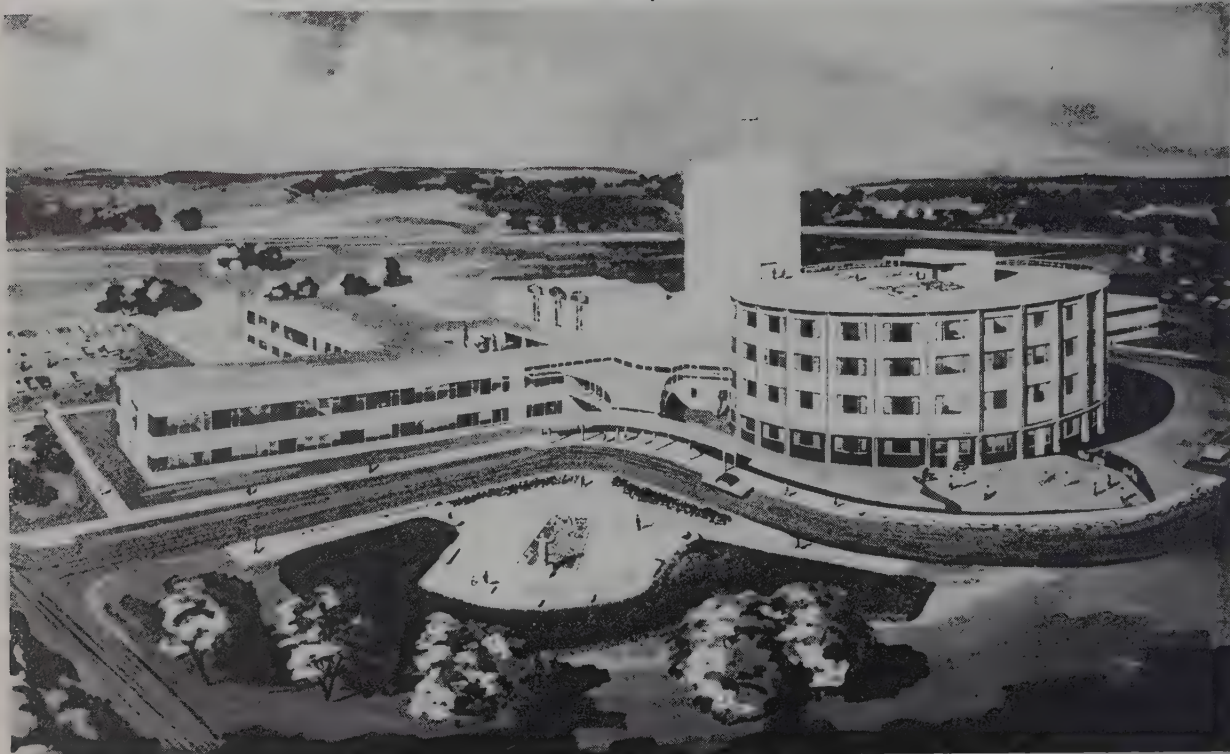
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Architect:

S. M. Roscoe

General Contractor:

W. P. Pigott

Painting Contractor:

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P & L Products Used: Redwood Stain,
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Enamel Eggshell, "38" Pale Trim Varnish.

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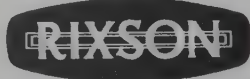
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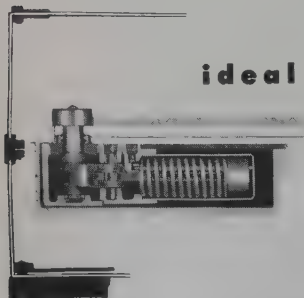
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ideal for school classroom doors
hospital patient room doors
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Amtico Vinyl Floor
makes unique beauty
so practical

as illustrated on the facing page



THE FLOORING:
Amtico Celestial Vinyl

THE COLORS:

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|-------------------------|------------------------|
| 1 VL-140 Golden Fleece | 5 VL-540 Sunset Red |
| 2 VL-240 Golden Night | 6 VL-541 Dawn Pink |
| 3 VL-330 Silver Cloud | 7 VL-840 Neptune Green |
| 4 VL-440 Champagne Mist | 8 VL-940 Horizon Blue |

CELESTIAL FLOORING SPECIFICATIONS:

Amtico Permalife Vinyl $\frac{1}{8}$ " ... all-vinyl, color throughout thickness • Standard tile sizes ... 9" x 9", 12" x 12", 36" x 36" (untrimmed) • Special sizes ... 9" x 18", 18" x 18", 24" x 36", 36" x 36" (trimmed) • Feature strips (Stardust and plain vinyl colors) up to 1" wide, 36" long.

AMTICO FLOORING FACTS:

Amtico Celestial Vinyl Flooring, like famous Amtico Renaissance,[®] is another good reason why architects look to Amtico for great ideas in high-fashion designs. In striking Celestial—inspired by the sweeping beauty of the heavens—starry clusters glitter through pearly translucent hues.

And you specify the very finest in quality when you call for Amtico Vinyl Flooring. An all-vinyl floor that withstands hardest wear, yet calls for only the very easiest maintenance. A flexible, resilient floor which won't crack or tear. A floor that resists grease and acids. You can specify an Amtico Vinyl Floor over wood subfloors, concrete under floors, suspended concrete, on-grade concrete, below-grade concrete.



a floor
is moonlight...
and romance...
and beauty...



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floor is *Amtico*
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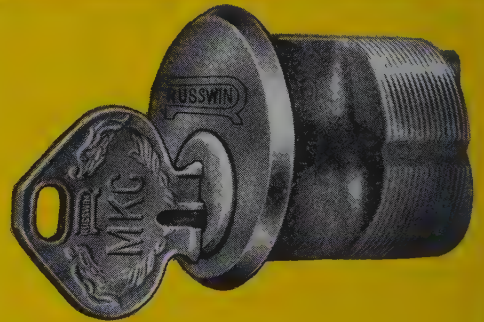
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Unique New Russwin Offers Quick, Easy Way

No lock cylinders to change! Simply turn a key for complete Security! One set of keys operates locksets during building construction. Another set is issued after work is completed. Initial use of this second set automatically cancels out the first



During building construction, Russwin Construction Keys work perfectly.

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The Russwin Construction Key System fills a long-standing and important security need. It offers a simple and effective solution to security problems caused by the loose manner in which master and regular keys are sometimes handled during building construction. By employing the use of a special construction key and an ingeniously-developed lockset cylinder, the plan assures the utmost in security without requiring a change in cylinders or plugs.

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Russwin locksets and cylinders are shipped together, the cylinders fully assembled. Cylinders are set to the construction key(s) as well as master and regular keys. Most important, only the construction keys are sent to the job and used during the construction period. The regular keys are not issued until the job has been accepted by architect or owner. The instant the regular key engages the cylinder and is operated, the construction keys or copies become inoperable. At once the regular keys only will operate the cylinder.

UNTIL YOU USE **THIS** ONE!

Construction Key System to Insure Building Security!

set! No lock cylinders to change. Security is insured with the turn of a key! The unique Russwin Construction Key System offers the simplest, quickest, most practical way to provide protection and peace of mind for any building owner.

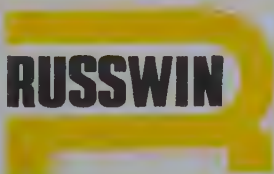


After building acceptance by architect or owner, Russwin Construction Keys positively will not work once the regular keys are used.

PRINCIPLE OF THE RUSSWIN CONSTRUCTION KEY SYSTEM

Russwin locksets designed for Construction Key System installation feature a split pin device in the lock cylinder. This pin remains inactive while Construction Keys are in use. When the building is completed, regular keys are issued. The moment these keys are used, the split pin device is activated and the Construction Keys can no longer operate the locks.

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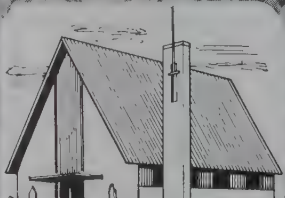
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dome skylights
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PLEXIGLAS dome skylights

PLEXIGLAS

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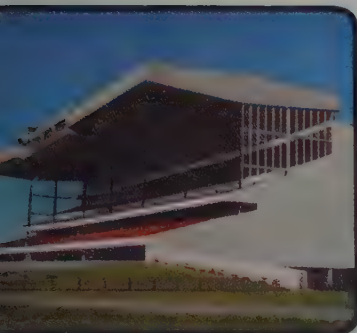
Distribution Centre: British Columbia Electric Company Limited, Vancouver, B.C.
Design: Owner
Aluminum Fabricator: Ornamental Bronze Co. Ltd.



Garage & Offices: Volkswagen Sales & Service Ltd., Montreal, Que.
Associated Architects: Henry Langston & F. David Mathias
Aluminum Fabricator: Rosco Metal & Roofing Products Ltd.



Plant & Offices: Built for Air Coils Mfg. Ltd., Oakville, Ont.
By: Model Industrial Developments Ltd.
Aluminum Fabricator: Disher Steel Division of Dominion Structural Steel Ltd.



Track Grandstand & Clubhouse: Ontario Jockey Club Ltd., Malton, Ont.
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LOOK WHAT THEY'RE DOING WITH *ALUMINUM*

Canadian architects and consulting engineers continue to solve important functional and appearance requirements for building owners by specifying aluminum insulated industrial curtain walls and roofs. Ask them to discuss the many features which make these modern walls *competitive* in first cost and low in *ultimate* cost.

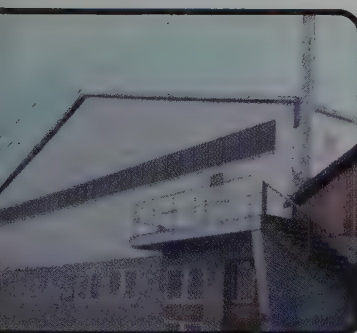
Consult the Canadian aluminum fabricators and erectors of these walls. They can save you money on the total installed costs by capitalizing on aluminum as the most economical of the light, durable architectural metals. Aluminum offers the widest variety of attractive permanent textures and finishes.



ALUMINUM COMPANY OF CANADA, LIMITED

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Building Designer: Owner
Aluminum Fabricator: Nesco Aluminum Ltd.



Warehouse: Carling Breweries (Que.) Ltd., Montreal, Que.
Building Designer: Owner
Aluminum Fabricator: Rosco Metal & Roofing Products Ltd.



Warehouse: Campbell Soup Co. Ltd., New Toronto, Ont.
Architects: Mathers & Haldenby
Aluminum Fabricator & Erector: Robertson-Irwin Ltd.

speaking of 2-ball-bearing hinges...

ONLY A HAGER HAS THE EXCLUSIVE

"Life-Time Bearing"

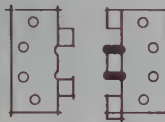
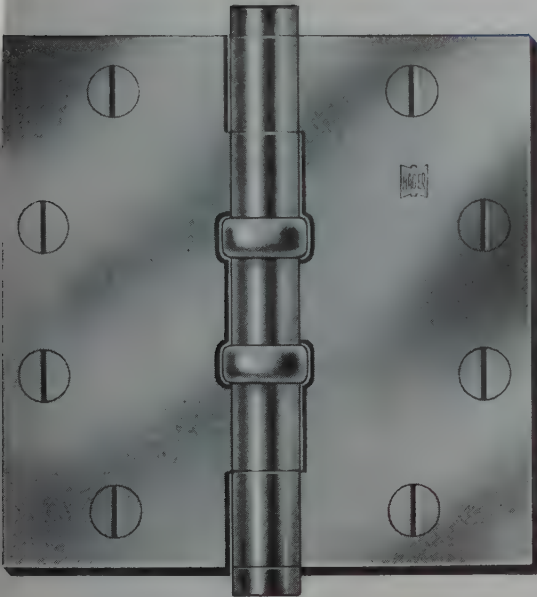
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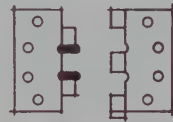
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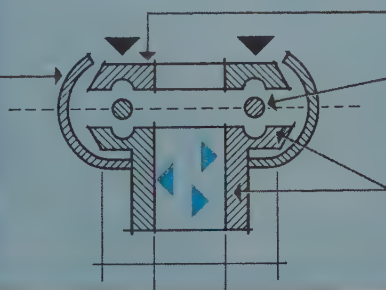
NOT THIS...
not one-knuckle-bored with wear-away brass to anchor the bearings. (Bearings finally fall out when pin is removed)



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two-knuckle-bored construction with bearings anchored with case hardened steel.

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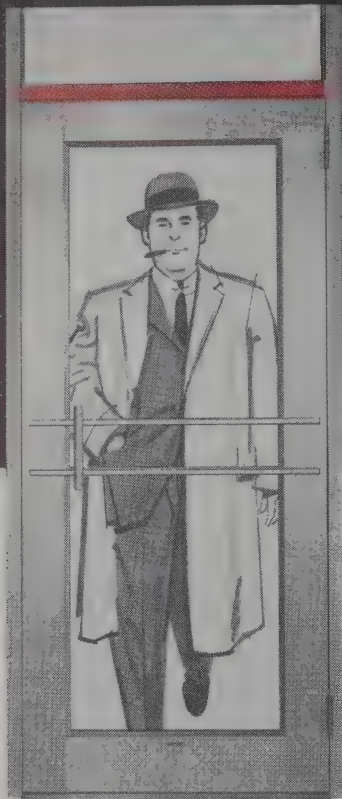
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new! KAWNEER DUTY-RATED ENTRANCE PACKAGES



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The Stainless Steel 200 has been developed for those applications in which the design and decor of the building or store makes its use preferable.

with "tuned-to-the-traffic" design

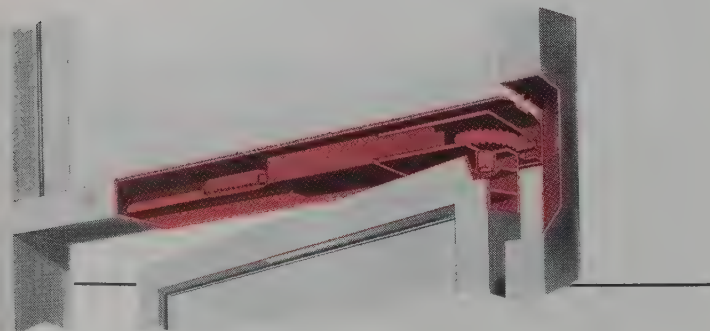
These new Kawneer entrance packages are built to meet specific entrance needs. They combine the economy of fabrication with custom design flexibility. You choose from

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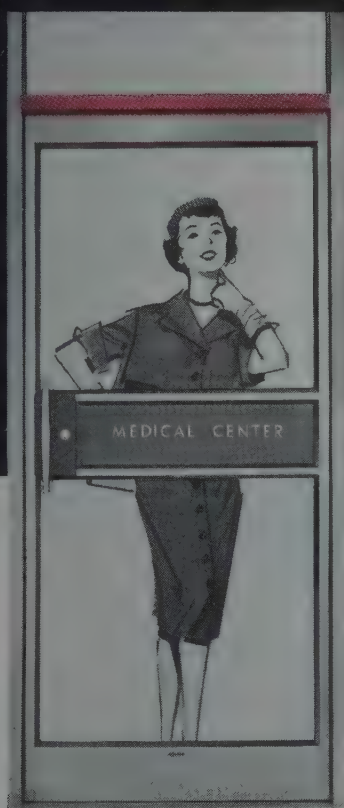
For complete information, please write to:

Kawneer Company Canada Limited,
Dept. 75, 1460 Don Mills Road,
Don Mills, Ontario

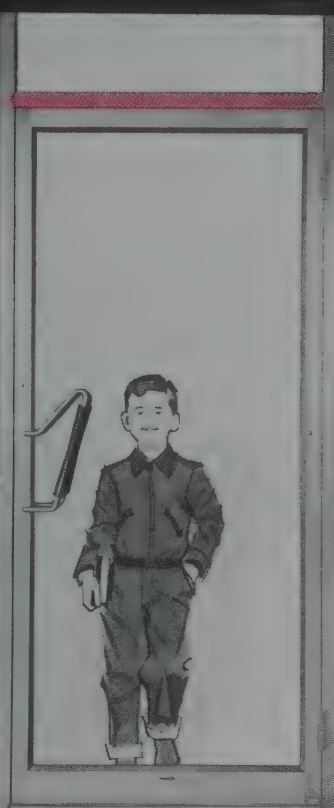


Kawneer Concealed Overhead Closer
... It introduced the new sheer look in entrances—with low installed cost! No holes to dig, no cement case to set, no complex adjustments to make; this closer is completely concealed in the 1 3/4" transom bar. Available with all Kawneer entrance packages.





The Style Leader 125 is designed for shops where atmosphere is important, such as jewelry stores, clothing stores and specialty shops, or for banks or stores desiring a prestige appearance.



The Narrow Stile 188 is used in stores or buildings which have a normal to heavy flow of traffic.

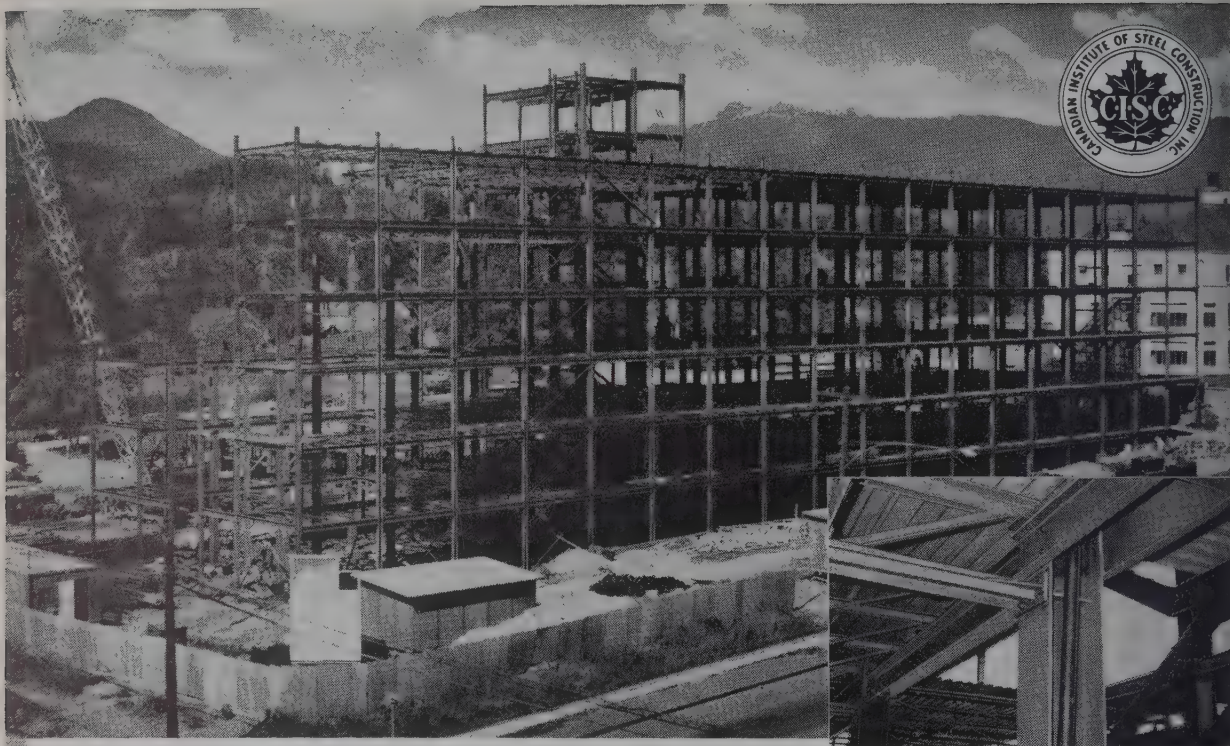


The Extra Duty 350 is for use in stores or buildings which have an extra heavy flow of abusive traffic, such as supermarkets and schools.

***Keys to the slim appearance
and low installed cost of
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manual or automatic***



Kawneer Automatic Operator... the new idea in automatic operators. Nothing buried in the floor, nothing hanging over the door. The Kawneer Automatic Operator is completely concealed in the 4½" transom bar, wired to the mat through the frame. Available with all Kawneer entrance packages.



These pictures show **HOW TO SAVE A MILLION**

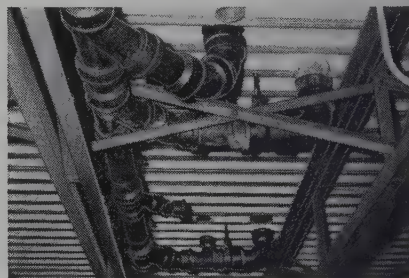
Savings of nearly one million dollars have been effected in construction at the new Lions' Gate Hospital in North Vancouver.

This was due largely to the flexibility of steelwork design which allowed a more economical installation of mechanical and electrical services and a reduction of nearly forty percent in total dead weight.

Three of many striking examples of the adaptability of steel construction are shown on this page. Dominion Bridge, Vancouver, fabricated and erected the structural steel frame.

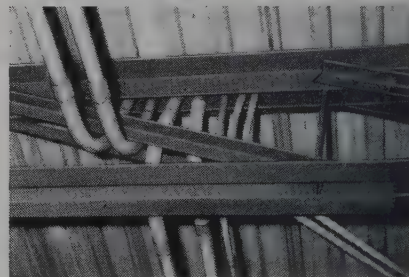
Plans for the hospital were prepared by the Vancouver architectural firm of Underwood, McKinley and Cameron. Structural consultants were F. Wavell Urry and R. C. Clough Engineering Ltd., also of Vancouver.

BESIDES PROVIDING continuous shallow depth floor girders, twin channels placed on opposite flanges of the columns allow more efficient positioning of vertical pipe runs.



EASIER INSTALLATION of services through the use of open web steel joist system, shown above, was one of important reasons for the substantial savings realized in the construction of the hospital.

SMALL PIPES FOR OXYGEN, vacuum and electrical services are easily passed through the spaced double angle top chords of the joists directly into partitions without troublesome bends or offsets.



structural steel by
DOMINION BRIDGE

FOURTEEN PLANTS—COAST-TO-COAST

13

NEW FROM SCHLAGE STANDARD DUTY LOCK TRIM IN STAINLESS STEEL

Schlage is first to offer this durable finish in standard residential locks

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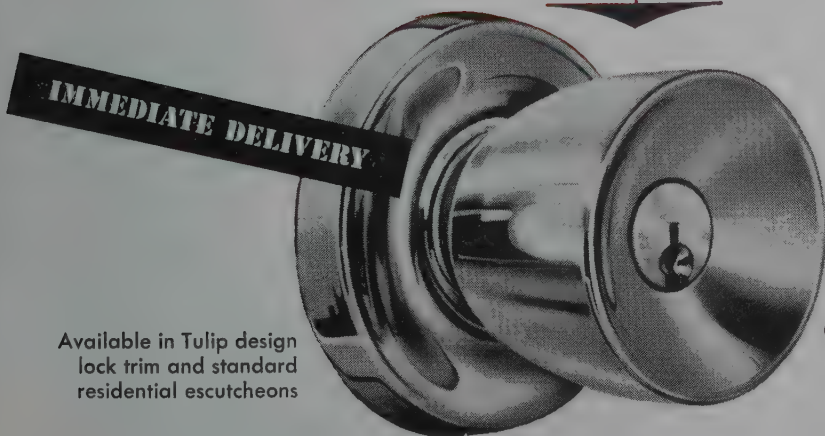
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- Durability
- Corrosion-resistance
- No maintenance
- No lacquer to wear

Stainless steel, formerly available only in heavy-duty locks, is now offered by Schlage for light commercial buildings and moderate-priced homes. Specify Schlage stainless steel for beauty and durability.

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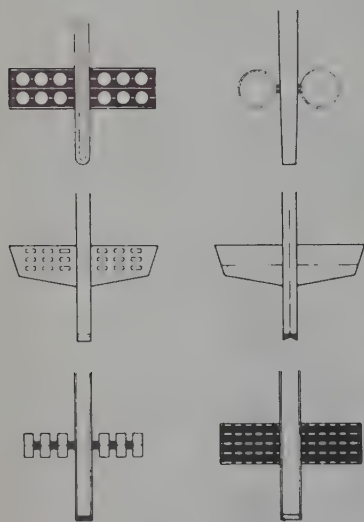
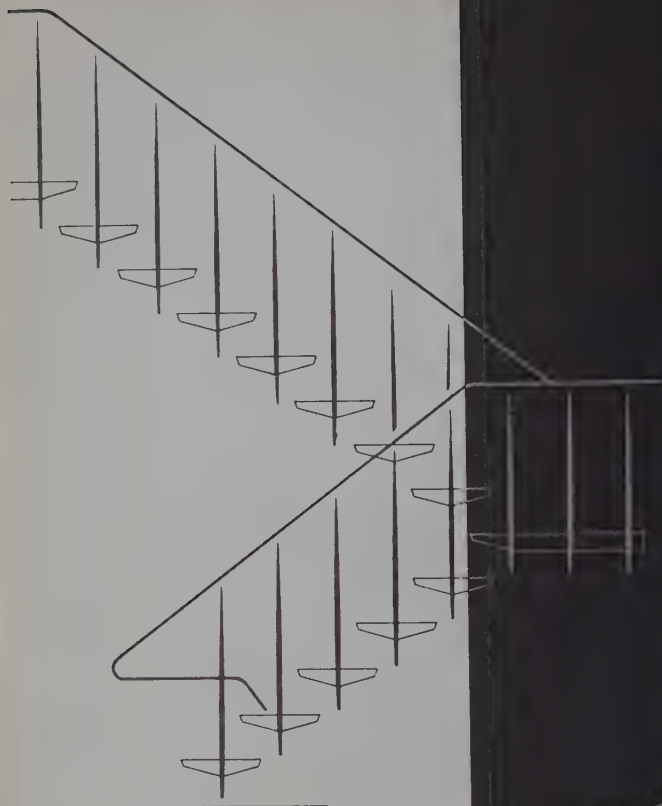
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VANCOUVER
View north easterly from
downtown business district
across Burrard Inlet
to North Vancouver.
Photo by George Hunter

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Commodity, firmness and DELIGHT

LAST WEEK, MR THOMAS CREIGHTON of New York read a paper before the Ontario Association of Architects which will be published as soon as space can be found in the *Journal*. It was one address among several at the Convention, but Mr Creighton's words and pictures still come to mind in subway trains and the oddest places. He called his subject the "New Sensualism" which we do not consider too happy a title, with its overtones of flesh and the devil, to describe a new architecture appealing directly to the emotions. Professor Acland would call it the new baroque. We have all seen it sporadically in TWA, the Chapel at Ronchamp, the Toronto City Hall and a dozen other examples, but with fifty slides or more, Mr Creighton made it clear that a new world movement was in the making.

The Toronto City Hall Competition and, now, Winnipeg, indicate a reaction to the geometric precision and the proportional niceties of the architecture of the Miesian era. In the former with over five hundred samples, it could be seen, even at a casual glance, that the disciples of Mies Van der Rohe were far from being a majority. Of the seven selected for the second stage, only one relied for its effect on transparency and the universally popular curtain wall.

In the Winnipeg Competition, a distinguished jury chose the scheme that most greatly appealed to the emotions. Green, Blankstein and Russell's solution is a more disciplined design than any that we saw, and failed to understand, in Mr Creighton's collection. In their design, the architects used the textured office block most skillfully as a foil to the poetry and gaiety of the low building housing the lobby and the Council Chamber. Here is a direct appeal to the emotions disciplined by carefully studied proportions and the rhythmic beat of the pointed arches. This is the delight that Vitruvius considered an essential element in great building. It is a delight, in this case, not only of form, but of movement with a curious and appropriate reminder of the Royal Winnipeg Ballet. It shows, it seems to us, that a building can have a powerful emotional appeal at the same time that it exploits, rather than ignores, those disciplines that were inherent in the great architecture of the past. If we had to find an adjective to suit it, it would be sensitive or sensuous which, to us, are quite foreign to the idea of sensualism.

For the audience in Toronto, the whole subject was one of profound mystery. A great building of dynamic form and sensitivity of detail is emerging in the city hall, but we know it, so far, like Winnipeg, only in cardboard. There are no Ronchamps on Bloor Street, and the new Court House on University Avenue will be no Chandigarh. The examples that we saw were for the most part in concrete, though, in answer to a question, Mr Creighton mentioned several buildings in the new manner in metal. In Toronto, we have had little experience in either material, but both offer a challenge. We feel confident that of the many seeds dropped by Mr Creighton some fell on fertile soil.

Commodité, solidité et ENCHANTEMENT

M. THOMAS CREIGHTON DE NEW YORK présentait récemment au Congrès de l'Association des architectes d'Ontario, un travail que nous publierons sous peu dans le *Journal*. Les paroles et les images de M. Creighton nous reviennent encore à la mémoire à tout moment. Son allocution s'intitulait "Un nouveau sensualisme"; c'est un titre que nous n'aimons guère, à cause de ses airs de péché, pour désigner une nouvelle architecture qui s'adresse directement aux émotions.

Le professeur Acland voudrait l'appeler le néo-baroque. Nous en avons tous vu des exemples: la chapelle de Ronchamps, l'hôtel de ville de Toronto, etc., mais avec plus de cinquante diapositives, M. Creighton nous a démontré qu'un nouveau mouvement est lancé.

Le concours relatif à l'hôtel de ville de Toronto, puis de Winnipeg, révèle une réaction contre la précision géométrique et les subtilités des proportions de l'architecture "miesienne". Dans le premier cas, on se rendait compte d'un simple coup d'oeil que, parmi plus de 500 inscriptions, les disciples de Mies Van der Rohe n'étaient déjà plus la majorité. Des sept projets retenus à la fin, un seul tirait son effet de la transparence et du mur-rideau universellement populaire.

A Winnipeg, le jury a choisi le projet qui s'adressait le plus à la sensibilité du spectateur. La solution de Green, Blankstein et Russell procède d'une conception plus disciplinée qu'aucune des oeuvres de la collection de M. Creighton. Les architectes ont su opposer avec bonheur le haut bloc destiné aux bureaux et d'édifice bas, plein de poésie et de gaieté, qui logera le foyer et la chambre du conseil. L'oeuvre veut émouvoir, mais par l'harmonie des proportions et le rythme des arcs en ogive. C'est là l'enchantement que Vitruvius estimait un élément essentiel de la grande architecture. L'enchantement ici ne tient pas seulement à la forme, mais aussi au mouvement qui évoque, de façon curieuse et avec à-propos, le ballet. Cette oeuvre démontre qu'un édifice peut émouvoir profondément tout en s'inspirant des disciplines qui ont fait la grandeur du passé. C'est du côté de l'émotion et de la sensibilité qu'il faudrait chercher un adjectif pour décrire adéquatement ce style qui nous paraît bien loin du sensualisme.

Pour l'auditoire de Toronto, le sujet était plein de mystère. Une grande oeuvre, de forme dynamique et émouvante dans ses détails, se révèle à nous en l'hôtel de ville, mais nous n'en connaissons jusqu'ici, comme à Winnipeg, que la maquette. Ronchamps n'est pas situé rue Bloor et notre nouveau palais de justice ne sera pas Chandigarh. M. Creighton nous a montré surtout des oeuvres en béton, bien qu'il en ait mentionné plusieurs, de style nouveau, en métal. Nous connaissons peu ces deux matériaux à Toronto; c'est une voie nouvelle qui s'offre. Nous sommes certain qu'une partie de la semence jetée par M. Creighton est tombée en sol fertile.

E.R.A.

Institute News

OAA Annual Meeting

This year's Convention was considered by many to be one of the most successful ever held and the members owe a considerable debt of gratitude to the Council, the Committee on Convention Arrangements, and our Secretariat.

From the official opening of the 1960 exhibits by his Worship the Mayor (of some of the people) to the Annual Dinner illuminated by the tingling wit of Dr Robertson Davies, this longest-in-our-lifetime convention was a masterpiece — or as close to a masterpiece as a North American 20th Century, Railway Hotel Convention could hope to be.

We now boast a membership of 950 and registration this year hit 390. To digress a moment on this point, the editorial page of the Toronto Telegram, March 2, 1960 states that Toronto's standing as a convention and visitors' meeting city needs some looking into; the authority quoted is the Metropolitan Toronto Convention and Visitors' Association which body claims that last year only one third of Toronto's convention facilities were used. The solution suggested is to provide the M.T.C. and V.A. with \$50,000.00 a year of Metro tax money to enable them to "invite" visitors. If next year's Committee is keen to push registrations toward the 395 mark they might consider joining or at least allotting five or ten thousand to the Convention and Visitors' Association. Just a suggestion.

There were 104 booths this year, sponsored by 84 separate exhibitors. The highest previous figures: 72 booths by 65 exhibitors. The participating firms are to be complimented for their ingenuity in the use of space and for the excellent standard of presentation; This evokes the thought that some award of merit for best booth might be considered for another year.

In this member's opinion the Report on the RAIC, given by Mr Harland Steele (OAA Representative to the RAIC) was by far the most significant highlight of the Annual Meeting. For many members, particularly the younger set, there have been grave doubts concerning the relationship between the Institute and the Provincial Association; there can be little doubt that the present program of the RAIC is founded on sound, common sense, and that there is a decided need for the national cohesion which this program sought to improve and maintain. The adoption of the motion to up-grade

fees by \$10.00 per year to supply the RAIC with increased funds was in some respects a vote of confidence and a clear indication of the desire for co-operation — and on this latter vein it was gratifying to see the OAA Council's Committee on Revisions to the Contract Forms (Peter Cox in the chair) offering their suggestions and recommendations to the RAIC with the strong hope of nation-wide influence and benefits. The meeting was run with hyper-efficiency, there were microphones in front of all Council members as well as the President and at least two standing "mikes" for the use of the floor. Almost the only comedy relief was Mr Leman's plea for withdrawal from circulation of certain of the P.R. Committee pamphlets. He felt it was doing the younger architect harm or at least damning him with faint praise to say, and we quote the pamphlet *THE ARCHITECT, WHO HE IS, AND HOW HE CAN SERVE YOU*: "Younger architects should not be overlooked. It frequently happens that they have a fresh and imaginative approach to matters of design". "To illustrate my point" said Mr Leman "how does it sound to substitute the word 'older' for 'younger'?"

The seminar and panel discussion were good of their kind. We pay full homage to Messrs. Creighton, Drummond, Arnup, and Frith, our distinguished visiting panelists, and to Haldenby, Adamson, and Strutt our erudite colleagues. They all did their best, however, there seems to be lots of room for improvement in these sections of our Annual Convention.

The panel of experts seated in a row facing the audience, each (panelist) with his own glass of water, his own pad and pencil, and his own convictions, is the least appealing of these two types of meetings. The seminar or paper-by-a-celebrity type of meeting where we have the observations of an accredited specialist and the relief of slides or props of some sort to give variety can be and certainly was this year, very interesting and entertaining; but even these appear to fall off rather dismally in the discussion period; it is a decided anti-climax to have comparatively uninformed home-towners asking questions which, if they are clearly understood by the speaker, seem to eventually take the edge off his main speech by forcing him to go on too long. The final round of applause, unlike the genuine hand given for the main paper, is usually prompted to some degree by relief.

The Committee, we know, works extremely hard to set up these educational sessions and they do not seem to



Lynden Y. McIntosh, Fort William, retiring president of the OAA, receives an engraved sterling silver bowl, in appreciation of his past year's service, from incoming president James W. Strutt, Ottawa.

earn as much reward as their efforts deserve; but we would hope that a professional body, whose members' stock-in-trade is creative imagination, could come forward with some exciting and stimulating ideas which might lead us away from the inevitable panels and seminars.

Just before Dr Davies spoke, Prof. E. R. Arthur presented the OAA with an oil painting of Inigo Jones. This was a delightful surprise as well as an historic occasion. The story which lies behind Eric Arthur's discovery of the portrait which he has tracked down and finally secured for us, proves that our *E.R.A.* has among his many talents those of Holmes (Sherlock) and Duveen. Discovering of one's colleagues' hidden talents has on more than one occasion been a highlight of OAA conventions of the past. Many of us recall the intriguing dramatic presentations by Gordon Hughes and Sam Gitterman and the Architects' Hobby Show when George Gibson took first prize with a steak and kidney pie. Let's hope these days haven't gone forever! As we indicated at the outset we seem to have our present convention formula perfected, but a bit of serious evaluation of the convention, its purpose and objectives and degree of success we are attaining, might bring to light some of the creative imagination referred to earlier; or we might turn back the clock and have an exhibit of members' work with awards, a Beaux Arts Ball at the Art Gallery, or a tour of Casa Loma — a sort of return to "The Old Sensualism".

N. H. McM.

RAIC Annual Assembly — Winnipeg 1-4 June



Members of 1960 Council of the NSAA (from the left): H. M. Romans, Hon Treasurer; C. A. E. Fowler, Councillor; T. W. Bauld, Councillor; J. L.

Darby, President; J. S. Macdonald, Councillor. (Not present) L. J. Page, Hon Secretary; C. D. Davison, Vice-President.

Nova Scotia Association Annual

A proposed school of architecture to be set up at the Nova Scotia Technical College in Halifax was the subject of an address by Jack Hoogstraten, president of NSTC, to association members at the closing dinner of the annual meeting of the Nova Scotia Association of Architects. Mr Hoogstraten, formerly professor of civil engineering at the University of Manitoba, described how the school would meet the growing need for a professional course in eastern Canada. It would be independent of the engineering department of the Technical College, and would rely on the other Maritime universities to give the first two years of the course. The final four years of the course would be given at the

Technical College and lead to a degree of Bachelor of Architecture.

A record attendance of architects at all the sessions of the two-day meeting, held February 1 and 2, and the opening of the first exhibit of architects' presentations in boards and models were among the highlights. Members also welcomed special guests, Robbins Elliott, executive director of the RAIC, and Neil Stewart, of Fredericton, member of the executive council of the RAIC.

During the business sessions, members adopted a new professional code of conduct; agreed to an increase in the annual dues to the RAIC from \$10 to \$20, effective January 1, 1960; and heard reports from various committees. A proposed new schedule of fees

was deferred a month for a more extensive consideration.

A serious discussion was held concerning the small home owner contemplating building and the architect's responsibility to this problem. A number of suggestions were put forward, i.e. a housing clinic, a special fee or set fee for houses within a stipulated price range, subsidies from a housing authority such as CMHC. A special committee will be set up this year to undertake to find a solution to aid the small home owner.

Last year's slate of officers was re-elected: John L. Darby, president; C. D. Davison, vice-president; L. J. Page, honorary secretary; H. M. Romans, honorary treasurer; councillors, C. A. E. Fowler, J. S. MacDonald and T. W. Bauld.

A seminar on "The Mechanics' Lien and Its Powers In Nova Scotia", was held on the second afternoon. The discussion was chaired by Lester J. Page, and on the panel were L. A. Kitz, QC, former Mayor of Halifax and practicing barrister; Murray Gould, president of the Halifax Construction Association; R. E. Cassidy, practicing architect of Truro, N.S., and G. N. Kent, professional engineer in Nova Scotia.

The exhibit of nearly 100 boards and models from architects of Nova Scotia and Prince Edward Island was opened by the Deputy Mayor of Halifax, H. R. Wyman, and drew a large number of visitors despite the worst snowstorm in the history of the city. The exhibit was open to the public for over a week at the Nova Scotia College of Art and was displayed in conjunction with an exhibit of etchings by the famous 18th century Italian architect, Perisani, owned by the National Gallery of Canada.

(Continued on page 123)

University of British Columbia Students' Section

In this issue the *Journal* publishes its eighth annual presentation of work done by one of the five Canadian Schools of Architecture. This year's project was prepared by a group of students at the University of British Columbia with Barry Nixon as student editor. The group was assisted and advised by Professors Arthur Erickson and Abraham Rogatnick of the school staff. The theme of the project, as described by Mr Nixon, is regional factors, found at UBC, which influence students' designs, such as site conditions, climatic conditions of weather and light, the influence of local materials, local traditions, the sea, etc.,

It seems appropriate that the work of students in the UBC School of

Architecture should be joined in this issue of the *Journal* by the accomplishments of practicing graduates of the School. Since 1950 the School of Architecture at the University of British Columbia has produced 116 graduates, of whom about 35 are either principals of firms or associates. These firms are nearly all in British Columbia, mostly in the greater Vancouver area. Several graduates operate two or three-man offices and represent the only available architectural service in a few interior towns, such as Chilliwack, Kelowna and Dawson Creek. The largest of the firms including UBC graduates, their partners, associates and staff, consists of about six or seven people, while the majority of practices are one, two or three-man offices.

The continuity of training and practice is thus very briefly illustrated in this issue of the *Journal* in which the pages following the students' section describe some of the recent work of four firms, including six UBC School of Architecture graduates. The six are Donald S. Jackson and Weldon Haley (Carlberg Jackson and Associates, New Westminster); Ray L. Toby (Toby and Russell, Vancouver); B. James Wensley and Barry A. Rand (Wensley and Rand, North Vancouver); and John Woodworth, Kelowna.

To complete the British Columbia presentation, Professor Fred Lasserre, Director of the School, explains the new program at the UBC School of Architecture.

A NEW PHASE BEGINS

ONE OF OUR MEMBERS, who has practiced architecture in Ontario since the middle thirties, remarked the other day that the Institute, operating in close concert with the Provincial Associations, has accomplished more for the profession in the past twelve months than in the previous twelve years.

Whether the claim is valid or not has no real importance — the point is that a start has been made toward giving the profession in Canada prestige and influence beyond the actual numerical strength of the profession.

Although comparatively few of our members take any direct or active interest in housing design, the principal event of the architectural year — because of the critical need for the survey and the inevitable spotlight of attention focussed on the profession — will be the unremitting work of the RAIC Committee of Inquiry into the Residential Environment. The Committee's report is being written now and will be released at Winnipeg on June 1st.

The program for 1960 is an ambitious one, but essentially it will be a period of consolidation. In mid-March the Nominating Committee of Past Presidents met in Toronto to form the 1960-61 Executive Committee slate; and the RAIC and CCA study groups consulted at Ottawa on the problems involved in creating a Canadian-style Producers' Council. On April 7-8, the Standing Committee on Building Research meets with NRC in Ottawa, and the RAIC Committee of Inquiry will meet at headquarters in both March and April. The Executive Committee of Council is slated to convene in the Capital on April 22-23. On May 21, Colin Copeman's national Package Deal Committee will compare notes in Ottawa. Almost all RAIC Standing and Special Committees will meet at the Assembly in Winnipeg in June.

These represent only a few of the RAIC units which are helping to advance the profession. They reflect some new vitality within. In carrying out the recommendations of the Woods-Gordon report of 1957-58, the *Journal* management and policy has been substantially made over, RAIC Committee functions were broadened and intensified, and a national public relations policy was created.

The Institute's financial uncertainties have now been removed by unanimous endorsement by the nine component societies of the RAIC per capita increase from \$10.00 to \$20.00 per year.

Reasonable limits must be placed on growth and expansion within any organization spread as thinly across the nation as is the RAIC. With the advances that have been made a new phase begins. It will be one of consolidation and preparation of new tasks.

LE DÉBUT D'UNE ÈRE NOUVELLE

L'UN DE NOS MEMBRES qui exerce en Ontario depuis 25 ans observait l'autre jour que l'Institut, de concert avec les Associations provinciales, avait fait plus pour la profession au cours des douze derniers mois que pendant les 12 années antérieures.

Peu importe que cette boutade soit vraie ou non, il reste que la profession a commencé à acquérir un prestige et une influence qui dépassent sa seule force numérique.

Même si assez peu de nos membres portent un intérêt direct ou actif à l'architecture domiciliaire, c'est le travail inlassable du Comité d'enquête de l'Institut sur les conditions de l'habitation qui aura été l'événement marquant de l'année architecturale; l'enquête répondait à un besoin pressant et elle a mis la profession en vedette. Le rapport, que l'on rédige en ce moment, sera rendu public à Winnipeg, le 1er juin.

Le programme de 1960 est vaste, mais il consistera surtout à consolider l'acquis. A la mi-mars, le Comité des candidatures, formé des anciens présidents, s'est réuni à Toronto, afin de dresser la liste des candidats au comité exécutif pour 1960-61; les groupes d'étude de l'Institut et de l'ACC se sont rencontrés à Ottawa afin d'étudier les problèmes que pose la création au Canada d'un Conseil des producteurs. Les 7 et 8 avril, le comité permanent de la recherche en bâtiment doit rencontrer les représentants du Conseil national de recherches, à Ottawa, et le Comité d'enquête de l'Institut doit se réunir au siège de l'IRAC en mars et en avril. Les 22 et 23 avril, le comité exécutif du conseil est censé se réunir dans la capitale. Le 21 mai, le comité national sur le contrat global, que dirige M. Colin Copeman, doit tenir une séance d'étude à Ottawa. La plupart des comités permanents et spéciaux de l'Institut se réuniront à l'Assemblée annuelle de Winnipeg, en juin.

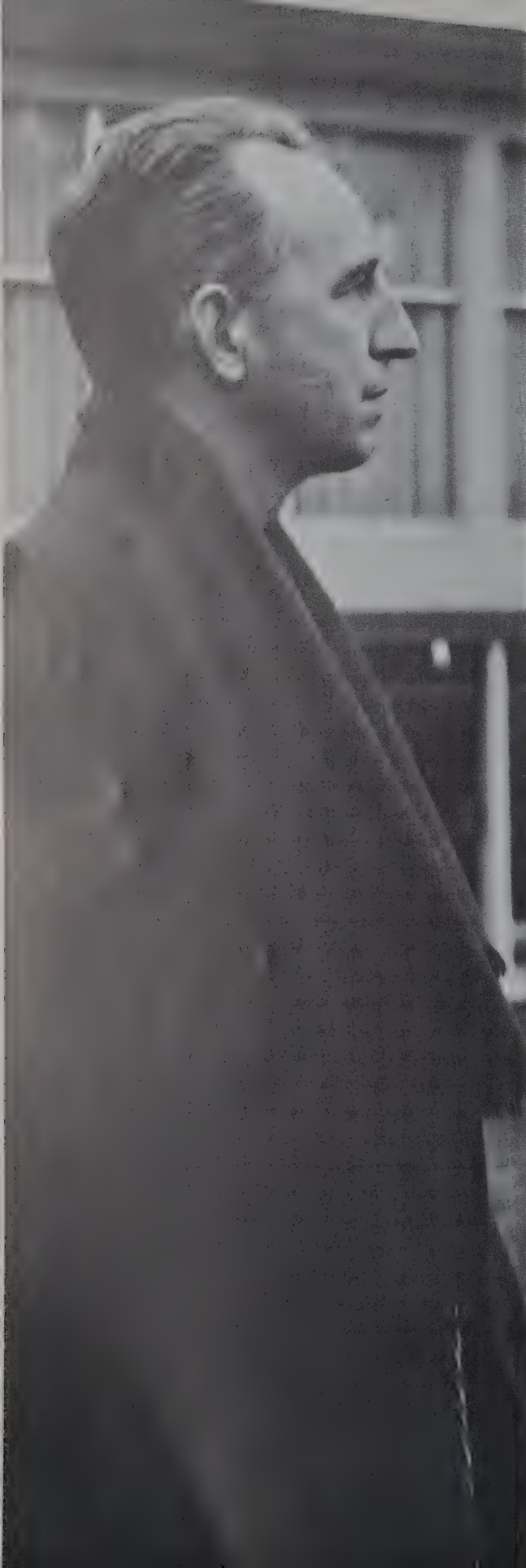
Ce ne sont là que quelques exemples du travail accompli pour l'avancement de la profession: ils sont le reflet d'une nouvelle flamme intérieure. En donnant suite aux recommandations du rapport Woods-Gordon de 1957-1958, on a transformé la direction et la ligne de conduite du *Journal*, élargi et accru les attributions des comités de l'Institut, et établi une politique nationale de relations avec le public.

L'incertitude qui planait sur les problèmes financiers de l'Institut est dissipée: les neuf Associations membres ont adopté à l'unanimité la hausse de la cotisation à l'Institut, de 10 à 20 dollars par année.

L'Institut, qui étend des liens si tenus sur un si vaste territoire, doit limiter sa croissance. Les progrès réalisés marquent le début d'une étape où l'on affermira ce qui a été accompli et jettera les bases d'entreprises nouvelles.

Robertson





ON these pages are the results of months of cogitation and discussion by an ardent group of students and two members of faculty. From the piles of photographs, drawings, sketches and models emerged the students' view, at the University of British Columbia, of what they consider major influences on their approach to architecture, to an architecture for British Columbia. They see in achievements at the School marked evidence of these. Already this page seems pregnant with symbols of major influences: the administration and faculty, the buildings designed and erected by its members, the grey and fertile mist of the coastal climate, the pronouncements of the Director.

A panoptic dissertation covering all influences was obviously impossible. Reference to some omissions must be made, particularly to the reflex conditioners of our civilization, the "hidden persuaders": the free enterprise that must conform, the superficial originality that repetition soon makes humdrum, the glib smart reply which fears the scrutiny that time normally does not permit, the photographs in the glossy magazines which glitteringly seduce the unwary into irrational imitation, the myriad of new materials and technical devices advertised so as to defy sensible selection, the motor industry's fin tail light complex and philosophy of dynamic obsolescence. The University administrators have the task of setting up counter-persuaders, courses and experiences that establish values against which the daily avalanche of slogans and discoveries may be tested.

The program at the University of British Columbia School, as at other Schools, has suffered from the pressure of time. The Academic Year becomes an urgent series of deadlines with fleeting seconds left for contemplation. Design projects are rapid regurgitations of ideas, nibbled at on yards of tracing paper. Considered and thoughtful judgment has little opportunity for exercise and development. The false "hidden persuaders" take over unless the School builds into its program techniques for influencing the student's subconscious mind into correct procedures and socially desirable values.

An architecture which has sound and lasting values ignores the shallow whims of the day; economic and time expediencies have not been allowed to overshadow man and his social, physical and emotional needs.

In an effort to achieve, among other advantages, a greater maturity of thought and knowledge of human values and truths, the School at the University of British Columbia has changed its course of study. A more extensive liberal education will precede the architectural studies which become intensively professional, with architectural design as the integrating core. The change in curriculum will give the student a better opportunity to benefit from the best, most creative and vigorous minds in the University at large. Plans for a Fine Arts Centre, including the School of Architecture, are under way. This will provide a further broadening and stimulating environmental influence to supplement the continuing administrative association with the Faculty of Applied Science.

Elsewhere in this issue is a description of the new three years Arts and Science — three years architecture and subsequent graduate program. The University of British Columbia, with the Pacific Ocean lapping at its foundations and the silhouette of the isolating mountain ranges crowning its roofs, was sufficiently free of tradition to embark upon this new program; a program which received the active support of the local architects and alumni. Those influences illustrated in this issue, the general cultural climate and architectural fervor of the region, the pioneering spirit of a young community — a spirit also present in the enthusiastic student, have undoubtedly contributed to the acceptance of the change. However it will be still-born if the buildings and cities which the School's graduates produce are not an improvement on those of today, if architects do not become leaders in our communities, carrying out the Athenian oath:

"We will transmit this our city not only less but greater, better and more beautiful than it has been transmitted to us."

Fred Lasserre
Director

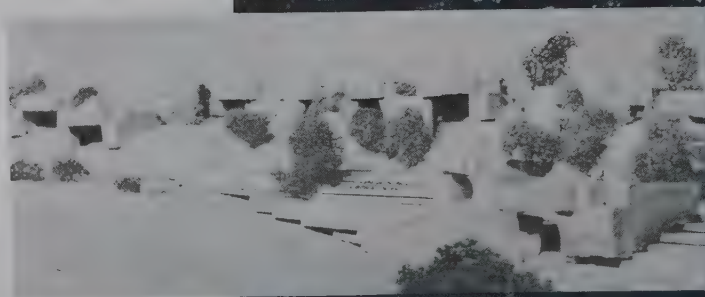
and us are
ly influences
the stimuli are reflected
our design.
y to define a few . . .

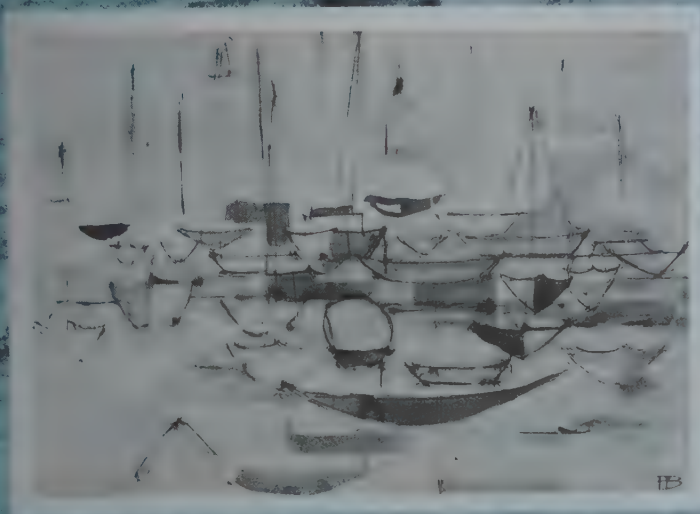
Pocketed geographically in the southwest corner of the country,
an independence is partner to our isolation.



Buildings to be matched to precipitous sites, turned to eye-wide views, and cushioned in abundant growth.

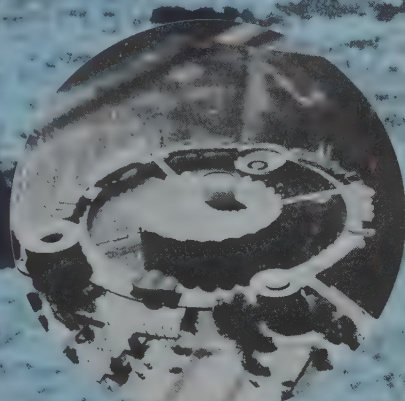
Housing — third year





Summer sketching

The sea fringes and infiltrates its presence.
Where the deep tide ceases, the chatter and bazaar
of harbour life manifest themselves in lively design.



Thesis — fifth year



Thesis — fifth year



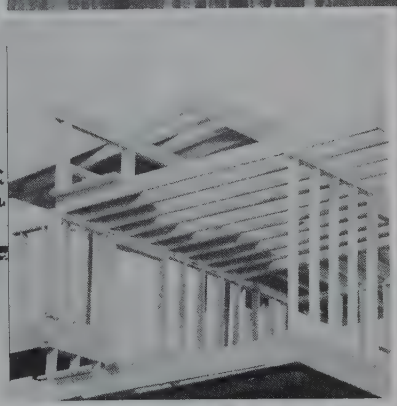
A mild climate of grey rain—a climate of tonalities where
façades flatten, forms fade, and immediate effects dominate.

Wood;
its forms,
textures, colours,
its very overwhelm,
lead us to explore
its nature and strength,
its potential.

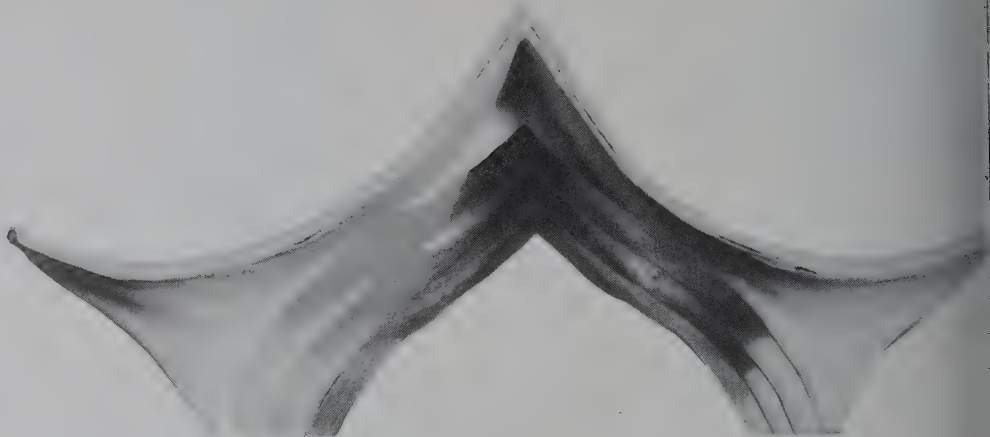
Wood joint — second year



Hideaway — second year



Wood construction — second year

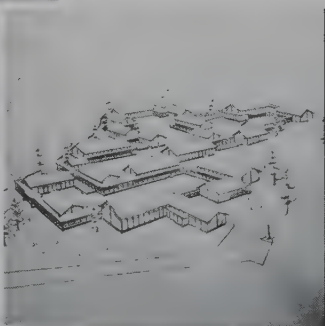


Temple — fourth year



Retreat — second year

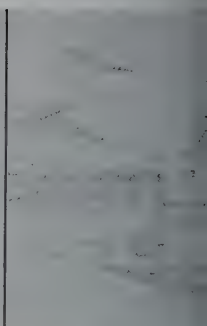
Where example is desired our sea climate, the rain-forest largesse of wood turns us toward a culture where similar conditions have been posed for centuries.



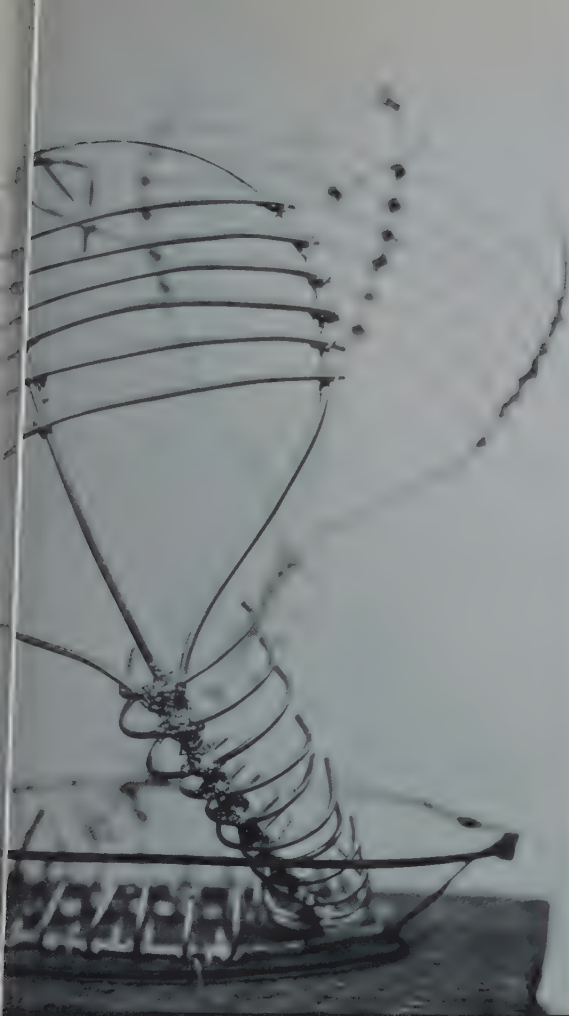
School — fourth year



House detail — third year



Hideaway — second year



Sculpture — fourth year

Student art gallery



Cultural centre — third year

Much of the fertile vigor of the local culture extends to us; we try to know the form and build to suit the spirit.

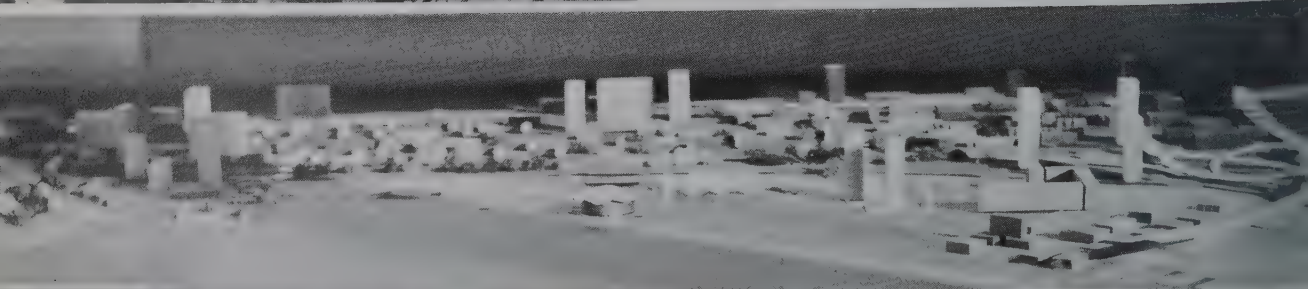


Photo courtesy Vancouver Sun

Vancouver, the city,
with its multitude
of cameos of the world,
challenges us to know
and meet its problems.



Summer sketching



Urban redevelopment—fifth year





ur school, students assembled to learn,
rough conflict of ideas and personalities,
and from the knowledge of the staff,
huts on the fringe of the university.



Office building — fifth year



Residence for Mr & Mrs David Poll
 British Properties
 West Vancouver

Architects
 Carlberg, Jackson & Associates
 New Westminster

Structural Consultant
 Geoffrey Leach, North Vancouver

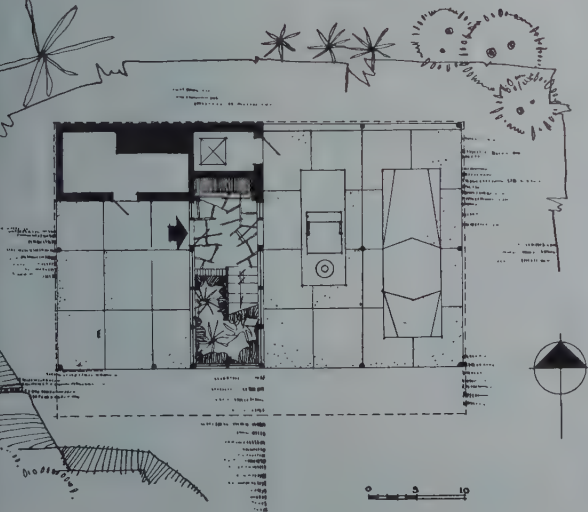
A contemporary, functional and economic (\$9.00 per sq ft) four bedroom and den house, with a view of the city from the elevated living quarters. Structure is beam and 4-in decking with lateral bracing accomplished through tie rods and concrete block, furnace room and storage. Footing is bed rock so no excavation was required.



First Floor



Second Floor



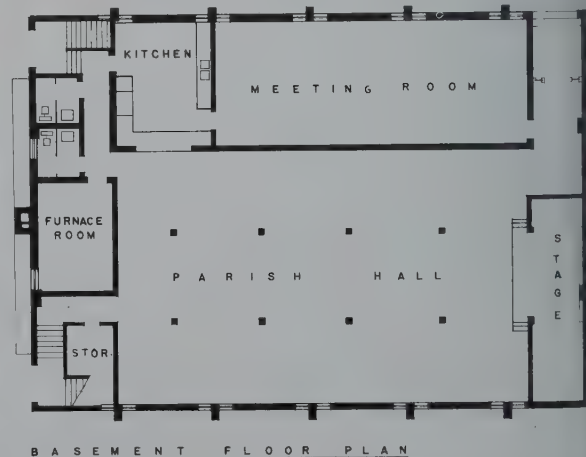
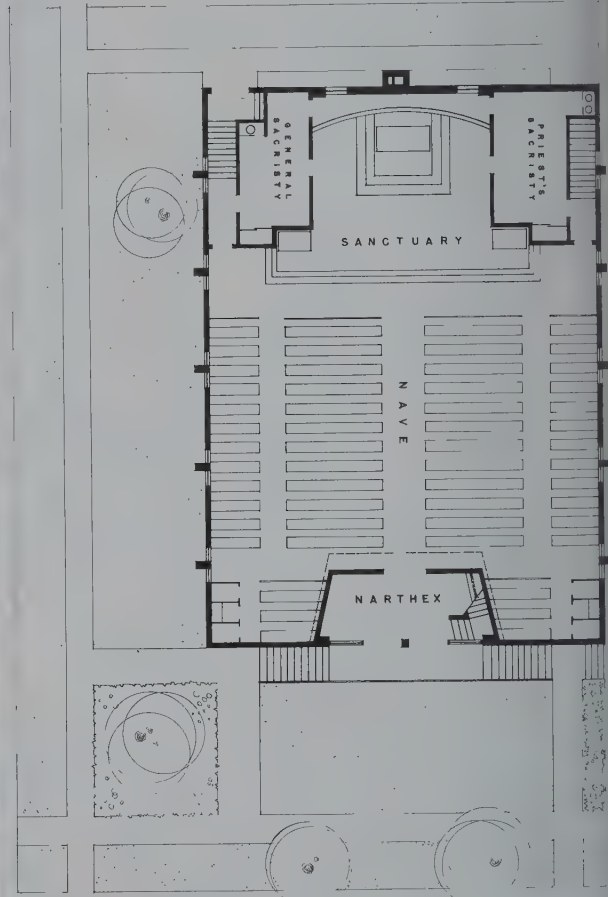
Photos by Selwyn Pullan



Church of St John the Apostle Vancouver

Architects
Toby & Russell
Vancouver

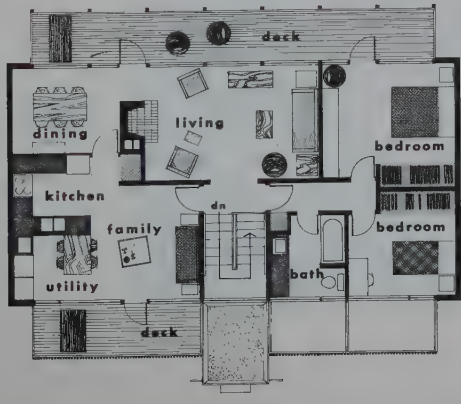
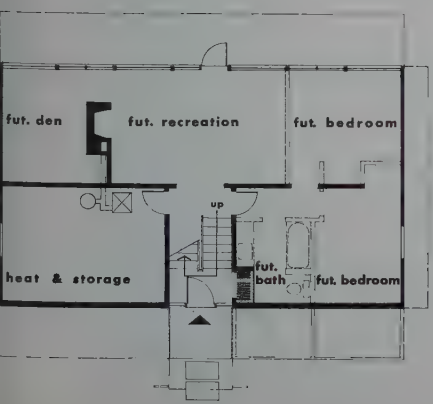
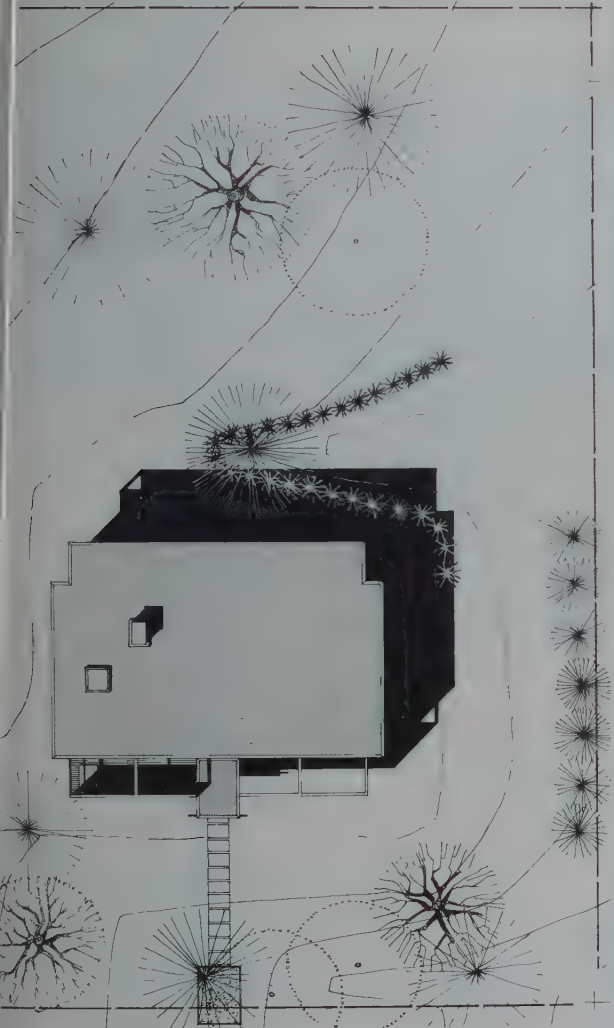
Structural: MacKenzie & Snowball
Electrical: Simpson & McGregor
Mechanical: Swanson Wright & Co

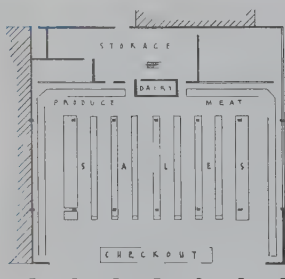
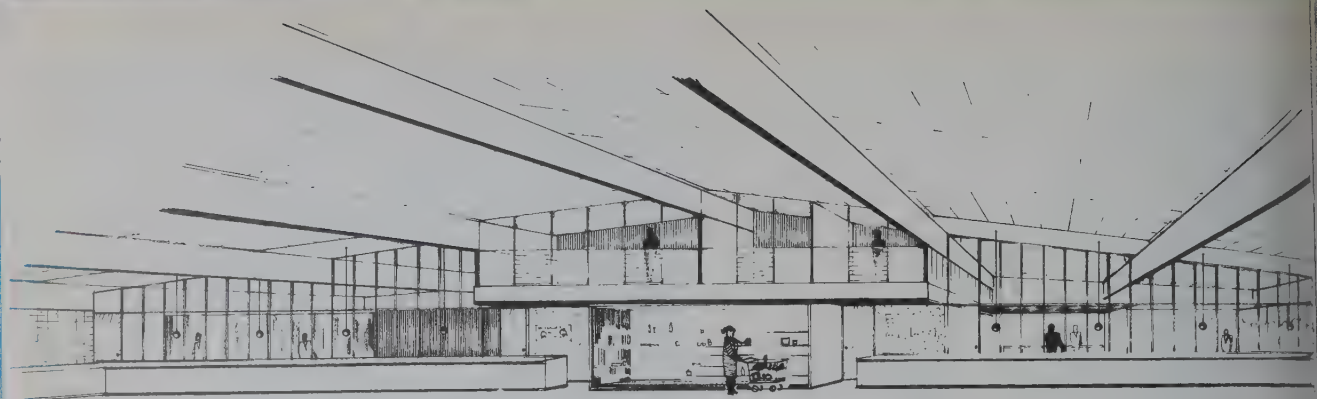


Residence for Mr & Mrs John Meyer
West Vancouver

Architects
Wensley & Rand
North Vancouver

Photos by Selwyn Pullan





MEZZANINE



Shop Easy Store "Shops Capri" Development Kelowna

Architect
John Woodworth
Kelowna

Photos by Paul Ponich



SELMYNN PULLAN

Addition to Power Plant Essondale Mental Hospital Essondale, B.C.

Architects
Toby & Russell
Vancouver

Structural & Mechanical
Swanson Wright & Co

Electrical
M. A. Thomas

A Major Change of Program

UBC *School of Architecture*

A NEW PROGRAM at the University of British Columbia School of Architecture was approved by the Senate of the University in the Spring of 1959. Instead of the present one year Arts and Science and five years of Architecture, the student will be required to have passed three years of Arts and Science and three years of Architecture. This does not, therefore, change the length of time a good student spends at University before obtaining his Bachelor of Architecture Degree.

Students will be able to enter the new program in the Fall of 1961, and will require the following standing:

1. (a) Successful completion of three years of the course leading to the degree of Bachelor of Arts or the Bachelor of Science in the University of British Columbia with either (1) an average of at least 65% in the examinations of the Third Year in a full course, or (2) an average of at least 65% in the combined results of the examinations in the Second and Third Years:

or

(b) Successful completion of the equivalent of (a) at an approved University. It is suggested that candidates should take at least one of their pre-architecture years at the University of British Columbia:

or

(c) Graduation in an approved course of studies at the University of British Columbia or at another approved university, with a graduation standing of at least 60%. Students lacking the required prerequisites for entry into the School may be permitted in special cases to take a limited number of these courses concurrently with his studies in Architecture:

or

(d) Successful completion of a minimum of two full academic years at another School of Architecture, subject to the candidate having the required prerequisites.

2. Passed the following subjects or their equivalent, which are prerequisite to entry into the School: English Composition and Literature (two years), Mathematics (two years), Physics (three years), History of Fine Arts (one year), History of Archi-

itecture (one year), Design Fundamentals (one year lecture and studio course). Students are advised to take their other six to nine elective subjects in fields which would give them (a) greater understanding of man's mind and body and of his institutions, (b) knowledge of the physical world and its chemistry, (c) increased appreciation of aesthetic values.

3. Submitted a satisfactory folio of drawings, paintings, and drafting giving evidence of his ability in these fields.

With this preparation, which will normally induce students to obtain a Bachelor of Arts or Bachelor of Science degree prior to entry into the School, the students in Architecture will find themselves in a highly professional and technical course. It is, however, hoped that the liberal training obtained and contact with other students, the future clients, will have created a pattern of academic habits which they will transfer to their activities in the School. The subjects which form the curriculum in the new course are the following:

First Year: Two week pre-term Workshop in Descriptive Geometry and Architectural Presentation, followed by Elements of Architectural Planning (first term), Architectural Design (including landscaping), Contemporary Architectural History (or elective if already taken), Building Construction and Materials, Strength of Materials, Elementary Structural Design (second term).

Second Year: Two week pre-term Workshop in Drawing and Sketching followed by Architectural Design (including industrial processes), Elements of Community Planning (or elective if already taken), Interior and Exterior Finishing (first term), Building Construction and Materials (second term), Structural Design, Mechanical Services (first term), Electrical Services and Acoustics (second term), Sculpture and Ceramics, Summer Report.

Third Year: Two week pre-term Workshop in Advanced Design followed by Architectural Design (including Group Housing and Graduation Project), Theory of Architecture, Commercial Law (first term), Architectural Practice and Specifications (second term), Structural Design, Building Economics (first term), Summer Graduation Project Report.

The School also offers a Graduate Program which is highly specialized. A graduate student must select one of these three options: Structures, Housing or Architectural Design Theory. The subjects he will study, the two design studio projects (including one related to his Thesis) and his Thesis will have to be chosen in relation to the field of specialization except as otherwise required by the School of Graduate Studies. Before admission to this program, the graduate must have spent at least one year of active work in an architect's office, or on work leading to the option chosen. A student must expect to spend at least one year at University before he

will be able to qualify for the Master of Architecture Degree.

From these descriptions, if studied in relation to the present program, it will be found that very little change has occurred except in the fields of graphics and general subjects. These have been taken care of by the prerequisites as described earlier and by the pre-architecture general subjects which the student takes in the Faculty of Arts and Science. It must be remembered that the first two years of the old five year course largely deal with general subjects which the future student will take, plus others, before coming into the new three year concentrated professional program.

The change in program is the result of a number of years of study and discussion within the School, and with experienced architects and graduates of the fourteen year old School. From the opinions received and votes taken, an overwhelming endorsement has resulted. The advantages are many, though the School is aware that certain aspects will require close attention if the present high standards in design are not to be lowered.

In 1956 I benefitted from a visit to some twenty-one Schools of Architecture of different types throughout non-communist Europe. Regardless of differences in curriculum, it was obvious that the designs that resulted in all were very similar and depended largely on three factors, the most important of these being the quality and academic enthusiasm of the staff. They, and the School, to do their best however, required good accommodation and equipment and a stimulating environment with respect to locale and to the understanding and support of the University Administration. The combination of staff, accommodation and environment, if dedicated to optimum development of the student and to maintenance of high standards, did not seem to be affected by small variations in time in the production of a well qualified architect.

Much discussion has taken place in Schools of Architecture conferences everywhere on the broadening of the student's education, in the study of basic principles and humanistic subjects. Many Schools have moved or are moving in the same direction as the University of British Columbia. Questions are raised upon the manner in which Design is taught and how the architect is being equipped to serve competently today's corporate and governmental clients, or to work with consultants and lending institutions. Where should the emphasis be placed? Fine building being admittedly the architects' first responsibility to society, how many years of design training is however actually required? Two? Five? Twenty?

From our study of the normal student's progress in the development of his personal application of basic design principles, two and one half years seems to be the time when his progress graph usually levels off. After this he merely learns how to apply these principles to more and more complex planning and engineering problems. Further development in his design skill, through the applica-

tion of the principles learned, will not stop at his third, fifth or thirtieth year, but will continue throughout his professional life.

It is our hope at U.B.C. that the graduate will leave University at the peak of his creative enthusiasm, which occurs shortly after he has attained confidence in the handling of design principles.

With this background, the School submitted last spring to the Senate of the University the following academic reasons for the new program:

1. A higher standard of general education and a higher degree of maturity should be achieved before the student enters his specialized professional training.
2. Once the student has been in the School of Architecture for two or three years under the present conditions, it is difficult for him to change to another field of study, if he should feel dissatisfaction with his career as an architect. He feels that he has invested time and money and must continue to the end. This situation is wasteful and frustrating for both teaching staff and students. The new proposal makes it possible for the student to postpone the final decision until he has matured in the University for three years. At that time he can choose whether to continue his studies in the Faculty of Arts and Science, or in the School of Architecture. To assist the student to arrive at a decision about his future career, as well as to prepare him for his professional course in Architecture, a number of prerequisite subjects are specified for his course in Arts and Science. These would include History of Architecture, Basic Design and Physics, and drawing and drafting experience.
3. In the present curriculum much confusion arises from too many subjects of entirely different character being taught in the same year. This we feel tends to lead to lack of concentration and superficiality in all subjects.
4. At the present time the student body in the School of Architecture is considerably isolated from the rest of the University, as during the five years of architecture most subjects are taught in the School. He, therefore, takes little advantage of other University facilities and participates little in extra-curricular activity. The proposed curriculum reduces the period of isolation to the last three years of study after the student has for three years participated in the major University faculty, the faculty of Arts and Science.
5. The length of time spent in continuous attendance in one university department with the same faculty is reduced from five to three years. This should reduce ennui and increase the academic vitality of the School.

This makes the requirements for Architecture very similar to those for Law, Medicine and Social Work, at the University of British Columbia.

*Fred Lasserre, Director
School of Architecture, UBC*

Viewpoint

"No Canadian architect has yet obtained international fame, such as have Le Corbusier, Frank Lloyd Wright, Neutra, Gropius and others. What is the reason?"

PANDORA'S BOX AGAIN! Just what *is* wrong with our own, our true, our native land? The lean bronzed northman striding across the Pre-Cambrian shield, the pawky Scot, reeking of whiskey, as he juggles rail or pipe line holdings (albeit with heart of gold under all), or the "Canadian" in fur hat carolling a happy song as his sleigh crunches over the snow; all these, have been shaken together in the basket of the twentieth century to produce that heir of all the ages, modern man in Canada. Veiling the rotund tummy with elegant grey flannel, and with attaché case attesting to a day of intelligent compromise and discreet gain, he smartly wheels his glittering juggernaut homewards to the North Shore, the Ravine, or the Lake Shore, and the cool but welcoming arms of his well manicured helpmate. He can be doctor, lawyer, architect or thief. What matter. An affable air of genial common sense insulates him from the awkward questions and challenging presumptions of genius.

Now let's be realistic about this. In fact, let's be Canadian. What do we want with genius? All those tiresome posturings, exhortatory declamations and unreal abstractions, would upset the establishment. After all, haven't we achieved a predictable adequate product? Dull but workable, our buildings shelter Canadian man from the vicissitudes of our impossible climate. What would we do with an expatriate Swiss with a penchant for Baroque mass in concrete, or a wild Welshman creating bardic poetry in wood and stone, or a stolid Teuton phrasing a classical song in steel? Such men are dangerous — in fact they are un-Canadian. And if by happenstance we should detect the stirring of genius in some mute inglorious youngster — a stint in a good practical Canadian school will effectively take care of *that*.

J. H. Acland, Toronto

SURELY, RICHARD NEUTRA or Walter Gropius cannot be accepted as "innovators" in the grand tradition, as exemplified by Le Corbusier or Frank Lloyd Wright?

However, Le Corbusier, Gropius and Neutra can be grouped broadly, under the heading "European Rationalists". Such men, aside from their natural endowments, are in the line of a long tradition of intellectualism and have been deeply conditioned by the social milieu of old Europe. These preconditions do not obtain in Canada and, until they do so, through the growing tempo of interchange of ideas by modern methods of communication, this country is unlikely to produce an architectural giant of that type. An individual Canadian of equal potential talent and intellect would have to emigrate to some other country if he hopes to obtain the stimulus of "forced growth" environment which might elevate him to world stature as an architect.

Frank Lloyd Wright is quite another type of person.

He, as a romantic, filled the architectural vacuum of the American mid-west with his arbitrary architectural creations. This individualism was doubtless inflamed by the early example of another, quite dissimilar, radical thinker — Louis Sullivan. Wright never quite managed to rationalise his approach to architectural problems, despite his evocative, obscurantist essays on "organic" architecture.

There seems to be nothing to hinder the emergence of a Canadian equivalent of Wright. Quite probably, in some remote village in the interior of B.C. or in some Montreal rumpus room, a budding genius of architecture is already constructing a space-volume, electronic emotion modulator which is destined to do away with architects altogether.

Warne Kennedy, Vancouver

UNFORTUNATELY, I do not consider this question to be reasonable. It should be worded; "Why should a Canadian architect be especially selected as amongst the chosen few to become internationally famous?"

In the first place, we are examining an extremely small segment (Canada) of a small proportion of the world's population and land coverage, that is, Western Civilization. There is no doubt in my mind that latent contemporary architectural genius is lying dormant in India, China and even Russia, awaiting the proper conditions to come awake.

When opportunities for architectural development are examined economically, politically and culturally we find that contradictions are the rule rather than the exception.

Frank Lloyd Wright for example was a product of a revival of Western Culture on the North American continent. A continent which abounds in economic and political activity, but which in European minds is poor in cultural sophistication. On the other hand, Neutra, Gropius and Le Corbusier, are products of Europe, our standards restricted in economic and political activity.

Again, we find Neimeyer, a student of Le Corbusier, and the son of a country no older than our own, but considerably poorer and definitely more unstable politically, rising to international prominence.

The production of architectural genius, it would appear, is not the result of a fortuitous combination of political, economic and cultural circumstances.

In searching the background of these and other famous architects we find one common factor; the creation of what may be called spontaneous foci. These little pockets of spontaneous creative activity occur without system in many backwater locations. Alto in Finland, Saarinen in Detroit, Wright at Taliesin, Gropius at the Bauhaus. There is a bond linking them together. In each case the individual architect or group of architects or designers have become the heirs to the culture unique to their racial, cultural or parochial group. Alto as a master of the brick and wood of Finland, Wright of the sweep of the prairies and their materials, Saarinen of the mechanism of Detroit, Gropius of the early industrialism of Europe.

When we turn our eyes inward to Canada, we are confronted by the same problem that faces the Canada Council; to create artificially a Canadian culture where none exists. A large area, a thinly spread population and a diversity of cultural background have caused us to become a part of Finland, Detroit, the Prairies and Industrialism without the conviction that we are all or any of these things.

If we are to produce an architecture of merit it must be produced within the frame-work of Western Civilization, not within the boundaries of parochial nationalism. We cannot manufacture a culture from birch bark canoes and French Canadian pea soup and hope to breath life into these long extinct symbols.

Surely no architect in Canada can assume this burden and hope to produce an architecture of international merit.

A. Bruce Etherington, Oakville

THE QUESTION COULD HAVE BEEN: "Why have so many Finnish architects attained international fame?" Finland has one quarter the population of Canada and lies entirely north of the northern border of Saskatchewan. It has approximately one architect for about every 15,000 citizens. In Canada we have one for every 7,500 citizens, in England there is one for every 3,500.

Is this ratio a factor? Or is it because the Finnish architect, like most of his European confreres, is not professionally protected by law, his services being sought for because of his art? Does international fame come to anyone on an architectural platter, or does it come only to those who have struggled to bring a social message beyond the technological achievement of a building?

I believe we have excellent and well-trained architects in Canada. They have produced buildings in recent years which are equal to any in North America. The absence of recognition is the result of many factors of which I consider the following to be the most critical: Canadian architects are protected by law, which means that they are not primarily challenged on a cultural level but mainly on an economic one. This seems to result in a considerable amount of public contempt for the ethics and aesthetics of much architectural behaviour. It also means that the architect must stoop to commercial devices so as to maintain his economic status. This renders well nigh impossible any consistency and refinement in the architectural language of any architect. A GREAT IDEA is not pushed to the limit. The architect's integrity disappears.

International fame has come primarily to those who have revolted against false and out-dated architectural ideas and have declared their GREAT IDEA with consistency and a breadth that stretched into town planning and a way of life. They have all pioneered and suffered because of the IDEA. Who in Canada has been as dedicated? Many of our great architectural minds in this country are squandered in a variety of trivial, isolated ideas — fraught with superficial and fashionable gimmicks. The all-embracing vision of a total architecture worthy of personal sacrifice does not fit into our protective economic climate. Certainly a Christopher

Owtram, who has this type of dedicated breadth of vision, is neither recognized in his community of Vancouver nor elsewhere. He does not fit into our stolid, mercenary, practical society — his struggle only raises sympathy and increases his debts.

I hope others will speak about public — or patron — indifference to architectural quality, about our lack of a native folk architecture and of a native great architectural epoch, such as Finland is blessed with, and about the effect of the glossy magazines, out to sell the maximum number of copies through the publication of the works of architectural heroes or oddities.

We shall not give our best architects the challenge which produces consistently great and meaningful architecture until we create a social climate where artistic achievement is bought with a struggle and not deposited as a dividend. Only then, I believe, the GREAT IDEA and the man who gave it birth might achieve respect and fame.

Fred Lasserre, Vancouver

IF WE COMPARE or review the leaders in the architectural profession of this century, Le Corbusier, Frank Lloyd Wright, Neutra, Gropius, and others, we find that in general they have a European background or an exposure to life as it is known in Europe. They too are academicians, and in the broad sense are teachers in the profession. As to their activities, we find them versatile in their fields of endeavour, achievement, etc. They are creative artists, writers, philosophers; they are the dedicated leaders of the times. In their youth they were in the midst of the initial architectural revolution that started in Central Europe in the early 1900's. At that time there was a need for a new cultural expression in the field of architecture. Another important element relative to these leaders was that of patronage. In one form or another there was always the proximity of the patron, which led in varying degrees to financial independence. Relatively speaking, these leaders had in effect a captive audience in that they existed or were part of major cultural centres, be it Paris, Dessau or Boston.

Can we find a Canadian comparable to these leaders, and one who could fit into that background? The answer I believe is no. The reason for this negative answer is obvious. As a Canadian he is a youth travelling down the centre of the road, wearing a conservative suit. He is surrounded by similar Canadians who have been so concerned with the everyday means of existence they have not yet demanded a culture or architecture with which they can be identified. When the time comes — and it may not be too distant — when we as a Nation believe we have found our place in the international scheme, politically and economically, then we will turn to our home environment. Only by outstanding achievement at home will we gain international fame.

We are a young nation of merely eighteen million. Our discovery of the exception is as yet a few years away. The leaders referred to are, one must admit, the exceptions, the outstanding men. Time will produce our leader.

Roy Jessiman, Vancouver

Winnipeg City Hall Competition

The Preliminary Report of the Jury, with photographs of the models and with plans of the winning entry and the five other finalists, was published in the January issue of the *Journal*. The Final Report now has been received. It incorporates comments on the competition and a detailed critique on the six finalists. The text of the introductory portion of the Report concludes: "The Jury wishes to congratulate the City of Winnipeg for its

wisdom in deciding to conduct a competition for the new City Hall and to record its appreciation of the efficient manner in which the Competition has been conducted by the Professional Adviser (John Russell). We submit herewith the basic considerations for judgment and a summary of our comments and criticisms re the six finalists. *SIGNED:* Pietro Belluschi, Ralph Rapson, Alfred Roth, Peter Thornton, Eric Thrift". The commentary on the six finalists follows.

ENTRY NO. 31 — Green, Blankstein, Russell & Associates Winnipeg The Winning Entry

SITING — An excellent town planning concept; the arrangement of high and low structures parallel to Memorial Boulevard forms a distinguished space focussed on the Legislative Building, at the same time creating two fine plazas, one on Broadway for daily public entrance and one on York Avenue for City Council and ceremonial entrances.

The tall mass echoes and complements the new Provincial Government office building to the east. In doing so, it effectively coordinates and completes the whole group of buildings and open spaces in the vicinity of the Legislative Building.

While the two units comprising the City Hall compose well with the other buildings in the area, they appear to be crowded rather close to one another. The Jury strongly recommends that the Government of Manitoba ease the specified alignment along the west side of Memorial Boulevard. In this way the two-storey unit could be moved eastward and its relationship to the office block would thereby be improved. This would in no way interfere with the approach view of the Legislative Building; it would, in fact, create a more appropriate asymmetrical balance with the Land Titles Office Building on the east side of Memorial Boulevard.

The Osborne Street side would be improved by greater attention to landscaping, changes of level, and provision of an adequate and more dignified staff entrance.

INTERNAL PLANNING — The basic plan is sound and permits great freedom of design, but has not been properly developed; it needs further study of the following points:

Two Storey Building — Access to the Mayor; circulation of Mayor to Council Chamber; connexion from Law Department to Administrative area; excessively long stair runs.

Office Block — Very tight in width; inadequate elevator lobbies; vertical circulation, especially to kitchen which has been neglected; kitchen service on reception level; link between two units weak (suggest a two-storey link, with Legal Department and Clerk on second floor of Office block); staff access inadequate, especially from west; provision of sheltered areas in conjunction with plazas is suggested.

EXTERIORS — The scale is well maintained both between the two units and between the City Hall

and its surroundings. The treatment of poured concrete should be carefully considered for durability of appearance: recommend some stone on both low and high units. The treatment of the east-west exposure on office block displays good sense and good proportions, and is very successful visually. The proposed upward expansion should be studied further.

INTERIORS — Very effective in space and detail. The form of the Council Chamber is questioned for good acoustics.

STRUCTURE — Economical, logical and straight forward. Further development of low unit structure might produce a more significant sculptural form.

OVER-ALL CONCEPT — Although some of the detailed planning has not been studied with sufficient care and thought, the basic scheme is excellent as a town planning concept. The Jury commended the clear expression of the dual nature of a City Hall. The grouping of legislative and ceremonial areas together with the major public-access elements in the two-storey unit appears to be much more logical and successful as the expressive symbol of the relation between civic government and the people than the usual segregation of the council chamber by itself into a unit separate from the administrative office building unit. In this solution, this dual expression echoes effectively the newly created separation between the principal legislative and administrative buildings of the Provincial Government.

The total complex of the two buildings and the two plazas has excellent character: its majestic urban scale would appear to symbolize appropriately the civic government; at the same time it has a human scale which welcomes the citizen in a democratic manner. It succeeds admirably in expressing both the dignity and the friendliness of a City Hall which serves its citizens and welcomes its visitors.

The presentation of the drawings and model was both competent and sophisticated, indicating a sensitive, thorough and competent architect: it left little to be desired. There was no doubt in the Jury's mind that this winning solution gave the greatest assurance of being developed into a truly appropriate and unique City Hall for Winnipeg.

SITING — Although not directly tailored to the specific site, the building's cruciform shape establishes axial relationships in all four directions and thereby relates well to the other buildings and spaces. The Jury commented favorably on the generous terrace whose sensitive shape relates well to the site.

INTERNAL PLANNING — Although the ground floor is generally good, the rest of the planning is quite involved, with little or no flexibility. This, of course, is a direct result of the arbitrary form with its resultant restrictions. The lower floor is inviting and appears to have exciting possibilities, but the other floors are congested and tortuous in their access to and arrangement of departments. The circulation around the Council Chamber is very restricted. The interiors and departmental layouts are complex and confused. The proposed extension on ground level is poor.

EXTERIORS — Symbolically fine, but the upper mass is disappointing in its development: in the

Preliminary Stage it had had a delicacy of scale which contrasted well with the heavy structure below; furthermore it had had strong potential sculptural qualities which were subsequently sacrificed for a certain crudeness resulting from the overhanging masses.

INTERIORS — Complexity of planning prevented the development of distinctive interiors, except for the monumentality of the inviting entrance.

STRUCTURE — Relatively expensive: the tour de force of great cantilevers so high above the terrace seems hardly worthwhile in the results as shown. Yet, in the Preliminary Stage the boldness and daring of the structure gave promise of great monumentality and symbolism.

OVER-ALL CONCEPT — A bold imaginative concept with excellent potentialities which failed to "come off" in the Final Stage.

ENTRY No. 185 — Michael M. Kopsa Toronto

SITING — Although a bit hesitant as a town-planning scheme, it has excellent plaza areas, providing good pedestrian access and well lighted basement areas. The Jury commended the handling of these entrance areas for their interest and variety.

INTERNAL PLANNING — The main floor is one of the best plans for organization of spaces and movement to them. The location, form and approach to the Council Chamber in the court is not as effective; there is little indication as to where it is. The Council Chamber might have been given a more prominent expression at the north end, or on the roof, rather than being squeezed into its present "puny" location. The Court is too small; impractical as a collector of snow and dirt; it would be better if glazed over.

EXTERIORS — There is little to distinguish this building from an ordinary office building; the addition of tower and flag poles is not enough to give it symbolic significance as a city hall. The great amount of glass on all façades is questioned for sun control. The great projection of the columns along the east and west façades is not justified by the inside structure or by the classic monumentality of effect. The north and south façade

treatment is even less successful. The overall proportions and the human scale of the plaza level is well handled; the upper portion, however, lacks the beautiful simplicity and character of the lower floors. A rich grille might have given it greater symbolic character. The combination of aluminum, bronze and marble on the exterior would lack unity.

INTERIORS — The Council Chamber is well planned; the Health & Welfare Departments are treated with dignity; but generally the interiors need more careful detailing and greater refinement in the use of materials.

STRUCTURE — Adequate, straight forward, reasonable, economical.

OVER-ALL CONCEPT — Although it is one of the best solutions in terms of its terraced entrance treatment and the planning of the lower floors, it falls short in its handling of the public reception and the approach to the Council Chamber. Furthermore, it lacks significant character as a city hall and has placed "just another office building" on a very distinguished and successful platform.

ENTRY No. 201 — Gerald Robinson Toronto

SITING — Its relation to the site is good; its low proportions create appropriate scale; its long curved form defines and accentuates the Memorial Boulevard approach to Legislative Building and, more than any other entry, recognizes and enhances the Osborne Street relationship to the total complex by both closing and opening the vista. The circular plaza (containing the Cenotaph moved from its present location) superimposed on the divided traffic plan of Memorial Boulevard is unsympathetic to the total site plan. The dynamic form of the building dominates the site, leaving no place to stop and rest. The rigid clumps of trees are questioned;

their classic balance along the east façade would not be appreciated at such close range. The access to parking is tight.

INTERNAL PLANNING — Weak: the internal organization does not function well. Areas have been distributed within the basic form of the building with little apparent concern for the way in which they should function or relate to each other. The off-centre placing of the Council Chamber is not successful. The court would have been better as an internal space if it had been covered at the main roof level.

EXTERIORS — The model indicates a sensitive design, excellent in scale and fascinating in its fine materials, immaculate in colour and workmanship. The drawings give no indication of such qualities; they are little more than enlargements of the diagrammatic layouts submitted in the Preliminary Stage, without definition of materials on detailing. The treatment of the north and south façades is not very happy.

INTERIORS — Only fair. The Council Chamber is unbelievably low and insignificant for its actual importance.

ENTRY NO. 208 — Smith, Carter, Searle Associates Winnipeg

SITING — Not a strong town planning concept: the form of the building is not very sympathetic to the site. It still appears as if it were not necessarily developed for this site, and would be equally appropriate on some other site. The landscaping plus the plaza development of the site leaves much to be desired.

INTERNAL PLANNING — The excellent, well organized plan shows considerable improvement over first submission. The Jury could find little to criticize, except poor natural lighting conditions in basement. The Council Chamber and its relation to the Mayor, Aldermen, etc. is one of the best, most thoroughly thought out and developed solutions.

EXTERIORS — The original square form of the building in the Preliminary Stage was more effective and had greater symbolism. The setback of the main and mezzanine floors produces an effective colonnade space, but this colonnade is not in good relationship to the floors above. The additional "expansion" floor improves the proportions of the building, but would be most difficult to accomplish successfully. The façade is restless due to the multitude of columns, which also induce the wrong sense of scale. The indentation of the

OVER-ALL CONCEPT — The Jury was greatly intrigued by the unique and exciting possibilities proposed in the Preliminary Stage. Basically, the concept, as presented in the final model and in the accompanying report, was excellent. However, the planning, the exteriors and interiors as presented in the drawings were unaccountably poor in both function and detail. It was most disappointing to see a brilliant conception, which had been presented with such sensitivity in a superb model, considerably negated by neglect of its architectural development.

corners was considered to be poorly conceived. The final model represents the building as dull, sombre, uninspired. The Preliminary Stage model had much greater potentials in symbolism, scale, proportion and sparkle.

INTERIORS — The public interiors achieve great dignity of space as places for the coming together of the people. Except for its lowness, the Council Chamber is most effective in its impressive but, subdued expression.

STRUCTURE — Satisfactory and reasonable, except for the two rows of columns so close together around the perimeter: these did not seem justifiable either aesthetically or structurally.

OVER-ALL CONCEPT — Basically, the concept failed in its lack of a positive symbolic expression of a city hall (it is an excellent office building); it also lacked sympathy with its site and its surroundings. Repeatedly, the Jury returned to reconsider it because of the excellent and very complete planning and the impressive interiors. Without a doubt this entry had the best graphic presentation. However, the Jury continued to find it wanting in character and site planning.

ENTRY NO. 246 — George S. Abram Willowdale, Ontario

SITING — The form of the building, like similar rectangular block solutions, fails to complement the area; instead it seems just to sit in the center with little relation to the other buildings and spaces. It tries to establish a N-S axis from the north, but the access ramp-bridge is a bit tricky; it does not lend itself to ceremonial and festive occasions. The double podium has complicated the scheme and results in unfortunate vertical proportions. A single podium would have been better. The service entrance is unfortunately placed in front of the north entrance.

INTERNAL PLANNING — Generally the areas are well organized and well related, although their development is somewhat sketchy. The poorly lit, depressed basement was criticized. The suggested expansion appears to be excessive.

EXTERIORS — The original presentation had great potentialities in the development of its rich tan-

gold, bronze and white façade treatment. The present black and grey façade has lost in quality and character. The relative vertical proportions of podium to colonnaded space to upper floors is not altogether successful.

INTERIORS — Rather unimaginative. The Final Stage treatment of the Legislative area has lost the quality it had in the preliminary submission. The Council Chamber is rather dull.

STRUCTURE — Adequate, economical. The form and shape would make for ease of maintenance and low first costs.

OVER-ALL CONCEPT — Rather disappointing in its redevelopment. Although it has a certain degree of competence in terms of a well organized plan with some fine internal features, it falls short in terms of a building which will represent civic government to the people.

A ROVING REPORTER AT THE OAA

IT'S A PLEASURE TO REPORT on a very successful annual meeting — the seventieth in the history of the Ontario Association of Architects. A little book which every architect in Ontario should read is that history of the Association published in 1950, and written by Mr Raymond Card. I have read it more than once, and each time I find something new of interest. I looked at it again in view of the seventieth anniversary, and I found that the pre-history of the RIBA is much like our own. Starting with a club of four members — James Wyatt, Henry Holland, George Dance and Samuel Cockerell, the nucleus took it upon themselves to add eleven others including Sir W. Chambers, Robert Adam and Sir J. Soane. Increasing in numbers and public respect over the years, steps toward professional recognition in an institute culminated in the formation of the RIBA in 1834 — the year of the incorporation of Toronto as a city.

I haven't taken the trouble to go into the history of the Royal College of Surgeons, but I expect their history began also as a club, but a club of barbers who became barber-surgeons, and then, with increased prestige and recognition, dropped the barber overboard and sought legislation as surgeons. In Ontario, as in the United States, the architect was slow to emerge from the building trades in the primitive communities of the early 19th century. In the United States, housewright was a common term for the successors to Inigo Jones on this continent, but it was, doubtless, a craft not less dignified in popular esteem than that of the shipwright.

Long prior to the creation of the OAA there were architects in Ontario who, like architects everywhere, would enjoy the society of their fellow craftsmen and would meet informally or as a club as they did in the 1880's at the home of a member, Mr Burke, who served lemonade and cake. Thoughts of this party passed through my mind as we attended the President's reception this year. Such is our fondness for Mr Lynden McIntosh, we should all have attended his summons for lemonade and cake had he offered it even though it would be thought an odd appetizer in 1960, even for the ladies. The "Guild" was our oldest organized group of architects in Ontario. It had its birth in the '80's and disappeared, except for its funds which still provide a cherished prize to students in the School of Architecture, with the formation of the OAA in 1890. And that brings us back to the present recent happy occasion.

I suppose the meeting by tradition is memorable for four things — the business meeting, the seminars, the dinner and the exhibition of building materials. The business meeting varies with the excitement that is generated by the business, and this year there seemed to be very little to excite the passions of the members. Fees were increased to help support the RAIC without comment; Mr John B. Parkin who, in such matters, is, himself, *sans peur et sans reproche*, came out solidly against the package deal and partial services. The choice of Mr Parkin as Chairman of the OAA Committee on Fees is an admirable one, and the results of the Committee's findings will have reverberations beyond the borders of Ontario.

Mr Morgan reported with regret that, while the number of members of the Art Gallery of Toronto had gone up, the architect membership had gone down. The reason is not hard to seek. The Gallery has lost touch with architecture, and our representative is now a member of an "advisory committee" which neither advised nor met in the last twelve months — a very different situation from that of years ago when the most successful gallery exhibitions were architectural, and of sufficient importance to justify the presence of at least four governor-generals, and an equal number of lieutenant governors at official openings.

The seminar where Mr Thomas Creighton read a paper (we were unable to attend Mr Raymore's which I heard on every hand was first class) provoked little discussion in spite of the excellence of the paper itself and an amazing collection of slides. Everywhere we went in the hotel we were distracted by either the decor or the acoustics, and for his seminar we were all too conscious of both. Against discussion, too, for a Toronto audience, was the topic, "The New Sensualism". We were all spellbound, but the burden of Mr Creighton's address was "Is this sort of thing on the way? Do you detect it in your own community?" It was with shame that we could not recall any semblance of sensualism on Bloor Street (one of our main thoroughfares) — the last stronghold of the bearing wall. We looked the word up in the Oxford Concise Dictionary, and it said under "sensualism" — "not depending on the intellect, carnal, fleshly". Well, we just don't go in for that sort of thing in the Queen city except on Jarvis Street, and that, in large measure, was responsible for the absence of discussion. Very valuable, however, were the after talks in small groups with Tom Creighton who is not a stranger to

Toronto and whose company we always enjoy.

My guess would be that the exhibition of building products was the most successful we have had both from the exhibitors' and the architects' points of view. Whenever I was there, which was frequent, there were always architects about showing a very great interest in the exhibits. The new sensualism was present in the new hardware, and the old sensualism in the decoration of the walls and ceiling of the room which beggars description. On one of my tours, I met Mr Izumi from Regina, and we got into a very interesting discussion of a new drug, under the influence of which Mr Izumi lost all sense of time, and found himself able to smell colours and see sounds. Beside us was the Ryerson student exhibition which we both thought fully justified the confidence of the profession. A charming design for an architect's office had, as an addition to the usual conference room, principal's room and so on, a tastefully furnished "conception room".

Some years ago, we departed from a long tradition of the annual dinner with a speaker by substituting for the speaker a dance. I believe the suggestion came from the returning veterans who had never experienced the old dinners enlivened by the presence of such personalities as Mr B. K. Sandwell, or the Provost of Trinity, Dr Cosgrove. This year's return to that old custom must surely have convinced the most hardened dancer that there is another, and perhaps less primitive way of terminating the annual dinner of a distinguished and venerable professional association. For a long time, we had hoped to hear Mr Robertson Davies speak at a dinner of the Association, and his address on the final evening surpassed all our expectations.

I confess to being something of a stickler for tradition, and I miss the presence at the head table of the Lt Governor, the Mayor and the President of the University. We have, in the past, had all three, and I cannot think of any more dignified way of drawing to the attention of the public the position that we hold in society as a profession.

Not the most memorable event for the rest of the dinner party, but indelible in the memories of the recipients, was the presentation by Mr Haldenby, the Chairman of the Registration Board, of certificates to new members.

I should be very remiss if I did not refer to the luncheon meeting when Mr Peter Barott spoke on Toronto and Montreal. This was the Toronto Chap-

(Continued on page 125)

Early Brick Masonry Along the St Lawrence in Ontario

by T. Ritchie,

Division of Building Research, National Research Council

AN IMPORTANT practical problem in research on unit masonry is that of attempting to predict, by artificial weathering tests carried out in the laboratory, what will be the actual durability of masonry materials which are selected for use in the walls of buildings. In addition to the nature of the materials themselves, other factors which affect the durability of masonry include the severity of weather conditions to which the wall is exposed, the manner of the wall's construction, its thickness, and the over-all design of the building, particularly the protection afforded the wall by the roof.

A unique opportunity to investigate aspects of this problem, in the field, was presented when the St Lawrence Seaway and Power Project was undertaken. Much land along the river, particularly between Morrisburg and Cornwall, was to be flooded. Buildings were to be moved to new sites when practicable, but many of the old structures, especially those of masonry construction, were to be demolished. The Hydro-Electric Power Commission of Ontario was responsible for relocating the communities affected by flooding, and arrangements were made for the National Research Council to utilize

for research purposes a number of the condemned buildings.

Since many of the brick buildings in the Aultsville area along the St Lawrence were relatively old, many having been built 80 to 150 or more years ago, it was thought that a study of some of these buildings, ie, their method of construction and the nature of the materials used, in the light of their apparent performance during so many years of service, might provide useful information on the subject of brick masonry materials. It would also provide historical information on methods of construction and materials used in that area in earlier days.

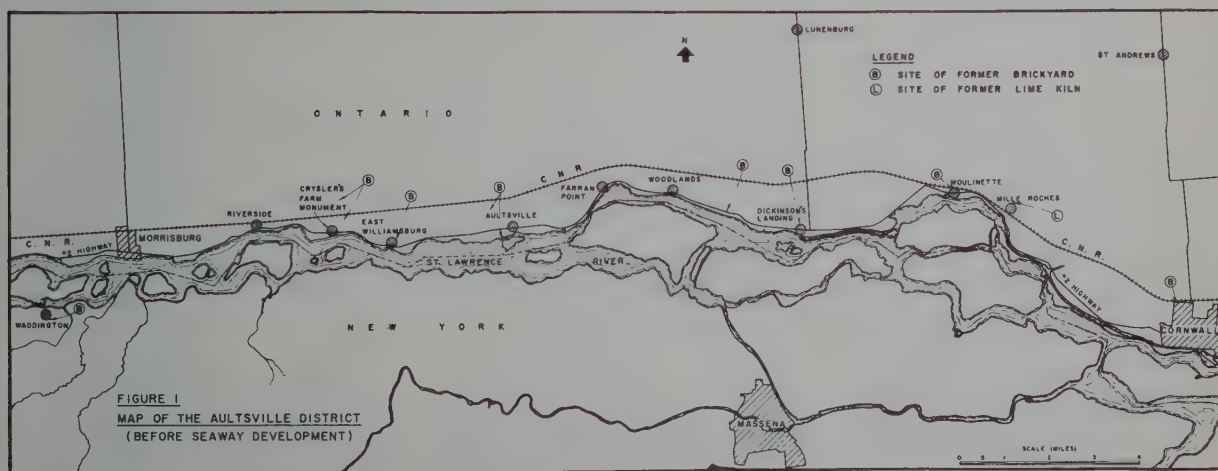
A number of buildings in the village of Aultsville, one of the larger communities in the area to be flooded, and a few buildings in other communities along the river, were examined and a record was made of the apparent condition of the masonry. The walls were opened to determine the manner of construction and to obtain samples of the bricks and mortar for tests in the laboratory. Some of the buildings such as churches had the (probable) date of construction inscribed on the wall. Information on the ages of many other buildings was kindly supplied by the Hydro-Electric Power Commission of Ontario.

This study includes a sketch of the history of building in the area, details of wall construction and of the materials used in the buildings examined, and some general conclusions regarding the durability of the masonry materials. A detailed study also is being made of bricks obtained from many buildings to obtain information on their durability when subjected to artificial weathering tests in the laboratory.

History of Building in the Aultsville Area

Several accounts are available both of events leading to the establishment of the first settlements on Canadian lands along the St Lawrence between Cornwall and Morrisburg and of the later development of the area ^{(1), (2), (3), (4)}. The settlement of the area began after the American War of Independence, 1775-1782. At that time there were only a few small forts and fur-trading posts in what is now Ontario.

In the American colonies during this war, lack of unanimity regarding independence from Great Britain caused many to leave for Canada at the beginning of the struggle to join the British forces against the rebels. One group



came from the Mohawk Valley of the present New York State, where a large number of settlers from Germany had come in 1710. Later, in 1773, Scottish Highland settlers arrived and when the War of Independence broke out many of these made their way north to Canada to join the British forces.

After the war, these soldiers were offered grants of land to become settlers, and the area along the St Lawrence between Cornwall and Morrisburg was surveyed for this purpose in 1783. In 1784 the first soldier settlers arrived most of whom were German and Scottish people from the Mohawk Valley. One of the soldier settlers was Nicholas Ault⁽⁴⁾. His son, also named Nicholas, received a grant of land as the son of a soldier. He opened a store, probably in the 1820's, and eventually the village of Aultsville was established nearby.

The pioneering life of the early settlers who had to clear the heavily treed land, prepare it for crops and build shelters has been related in many articles. The first buildings usually were rough wooden structures, but a tradition of building in masonry had been brought with the settlers and brick and stone masonry structures were erected very early in the settlements. This also happened in other settlements in North America, for example, "As early as 1692 one third of all houses in Boston were of brick or stone construction"⁽⁵⁾. The development of the area was probably retarded during the War of 1812-14, when invasion by forces from the American States took place in an attempt to make Canada a State in the Union. One of the battles took place at Crysler's Farm, a few miles west of the present Aultsville, where an invading American force was repulsed. The name Ault was prominent on the lists of the British forces taking part in actions along the upper St Lawrence during the war.

After the war the area continued its growth and the more interior parts became settled. Regular stagecoach service along the St Lawrence between Montreal and Kingston was started in 1816, and steamer service, which began on the river in 1832, allowed passage between Kingston and the rapids at Long Sault. A portage around the rapids was necessary and a stagecoach line was operated for this purpose from Dickinson's Landing (about 8 miles east of Aultsville) to Cornwall. As a result, Dickinson's Landing was an important centre, having several inns and stagecoach houses. In one of these ex-

amined during this study (possibly Snyder's Inn), several articles used in the pioneering days were seen, including a last for forming shoes, logging tools, rough crockery and harness parts and horseshoes, probably of stagecoach vintage.

The canal systems along the river were continually being improved to overcome the many rapids, and quarries to supply building stone for the locks were opened near Farran's Point, Mille Roches and at other locations. The Grand Trunk (now Canadian National) Railway was completed from Montreal to Brockville in 1855, passing through Aultsville and other communities along the river, and was extended to Toronto in 1856.

Aultsville seems to have reached the peak of its development in the mid-1800's. Then it was an important centre for rail shipment of farm produce to Montreal. These shipments included grain (barley, oats, buckwheat, etc.), cheese, eggs and apples, much of which was then exported from Montreal to Great Britain, or to the United States. An indication that Aultsville, and probably many other communities in the area, did not continue to expand much after 1880 is revealed by the fact that of 28 houses selected at random, more than 85 per cent were over 75 years old.

Brick Masonry Materials

An early brick-making industry along the St Lawrence in the Aultsville area has been mentioned in two reports, made in 1922 and 1924, of surveys of building materials and the raw materials to make them^{(6) (7)}. It was stated that, "Bricks . . . were extensively used in building up the towns and villages, and . . . the majority of the shops and houses are built of the red brick made in the vicinity. Many of the farmhouses along the roads are also built of red brick". Small brick-making plants were located along the riverfront at Prescott, Cardinal, East Williamsburg, Aultsville, Santa Cruz, Dickinson's Landing, Moulinette and Cornwall⁽⁶⁾. The approximate locations are shown in Fig 1. These small plants seemed to pass out of existence by the late 1800's; in 1922 it was reported that, "None of these brickyards are in operation at present, in fact it would be difficult to find the sites of several of them"⁽⁶⁾.

In a review⁽⁸⁾ of the clay products industry of Ontario made in 1906, no plant was reported to be producing bricks in Stormont, Dundas or Glen-

garry County. The decline in the number of small brick plants throughout the province was noted in a 1930 review⁽⁹⁾ which pointed out that of 192 plants operating in 1906, 123 were not in operation in 1929.

An interesting commentary on brick-making in Dundas County (west of the Aultsville area) was made in 1861. "The clay of the county is not esteemed very suitable for brick-making, being slightly mixed with fragments of limestone which are calcined in process of burning the brick, and on subsequent exposure to the weather make them liable to crack. Most of the bricks used in the county are brought from Aultsville in Stormont; or from Waddington in the US, immediately opposite"⁽¹⁰⁾. The same writer noted that bricks cost \$4.00 per thousand at the kiln, stone \$1.50 per cord at the quarry, and lime 15 cents per bushel at the kiln. He also pointed out that "a well finished farm-house of brick or stone 36 x 26, with kitchen, etc, 24 x 18, one storey and a half in height, with cellar underneath, costs \$1600".

Unusual buff-, or yellow-coloured bricks were made at one plant at least in the area, and during this study several buildings made of these bricks were examined and will be described later. The 1922 report indicates that the brickyard at Moulinette was a source of this type of brick⁽⁶⁾. "The site of the brickyard at Moulinette was probably near the river bank just west of the English church, as some masses of fused and waste brick were found among the weeds at that point". The report refers also to a building which was examined in the course of this study. "The best example of the use of buff bricks is the Methodist Church at Moulinette, which was built about 100 years ago, and remodelled in 1871 by having 8 feet taken off the height. The bricks were made water struck; they are a little smaller than the standard size and burned to a good hard body of buff colour. These bricks show absolutely no indication of weathering, but on the contrary, are hardening with age." Besides the church mentioned, some buildings in Dickinson's Landing a few miles west of Moulinette were found to be made of this unusual buff brick.

Some scattered information on the later years of brick industry in the Aultsville area was obtained from a few records of the Aultsville freight station of the Grand Trunk Railway. A notice of special rates was issued 1 August, 1876 to the effect that brick would be conveyed from Aultsville to Prescott at \$10.00 per car of 21,000 lb.

On 23 May, 1879 another special rate notice was issued to allow carloads of brick (22,000 lb) to be sent from Aultsville to Montreal for \$12.00 per car, to Kingston for \$10.00 per car, and to Belleville for \$12.00 per car. On 15 August, 1879 the rate was \$8.00 per car from Aultsville to Lancaster. Lime could be sent from Sherbrooke to Aultsville, on 21 May, 1878 for \$30.00 per car of 24,000 lb.

Twenty cars of bricks containing 24,000 lb each (ie, 4,000 bricks if each weighed 6 lb) were shipped from Aultsville by A. G. Castleman to Richard Lester at Ottawa, between 27 February and 22 March, 1886, and on 7 and 8 September, 1886, G. Castleman sent 3 cars of bricks to R. M. Arthur, Cornwall. In an account of the early industry, made in 1924, reference was made to an "old brickyard, a short distance east of the Chrysler monument", and to "Mr Cas-selman" who operated a plant in this locality⁽⁷⁾. The monument marked the site of a battle in the War of 1812. A car of bricks was sent from Aultsville to the Brockville Chemical and Superphosphate Co by John Elliott in July, 1886 and a later record of 10 October, 1888 showed that he sent a car to Neil McGillis in Lancaster. Shipments of earthenware from Aultsville by John and William Elliott were made during this period, and it is probable that the production of earthenware jugs, bowls, etc was carried on in conjunction with the making of bricks.*

The early method of making bricks has been described briefly⁽⁶⁾. "They were all small plants, making soft mud brick by hand, or with horse or steam power-driven brick machine. The drying was done on open floors, or on racks and pallets built out of doors. The bricks were built up in scove or clamp kilns for burning, and the fuel used was wood. The output was small, probably a million bricks a year would be the greatest for one plant, and in many cases half that quantity or less."

In the soft-mud method of brick-making, the clay (usually blended with sand) was mixed with water to a relatively soft, mud-like consistency, so that when placed in a brick-shaped mould it formed easily. The sides of

*Confirmed by reference to a list of early Ontario potters in "The Canadian Collector" by Gerald Stevens, Ryerson Press, Toronto, 1957; John Elliott and Bros., Erastus Dufoe, and Thos. McConnell were listed as operating potteries in Aultsville before 1875.

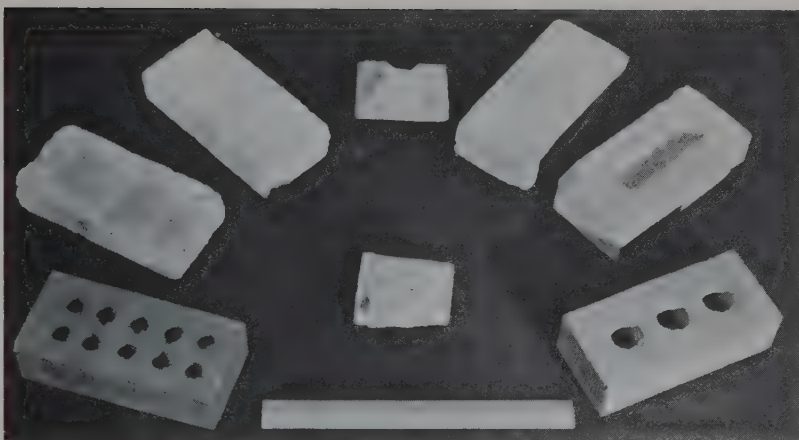


FIG 2 The two front bricks are of modern manufacture. Probable age of back bricks, left to right, 150, 150, 100 and 80 years respectively. Brick in left background was taken from stud space of a wood frame house.

the mould had been wetted or sanded so that when it was inverted the moulded brick came free without sticking. Bricks from wetted moulds were known as "water-struck", those from sanded moulds, "sand-struck", and fine grains of sand adhered to the surfaces after burning. The moulded bricks were dried in the open air or sometimes in artificially heated driers, then stacked up into rough kilns for burning. When bricks were removed from the walls of the buildings studied and the mortar broken away, particles of the moulding sand usually could be seen adhering to the brick surfaces.

Bricks taken from early buildings had flat surfaces but bricks used later, about 70 to 80 years ago, generally had a depression or "frog" in one of the bedding surfaces. When these bricks were laid in the wall the frogged surface almost invariably was placed downwards. The bricks were very irregular in size and shape and many were warped. The earlier bricks (90 years old or more) averaged slightly less than 8, 4 and 2 inches in length, width and height, respectively. Later bricks were generally slightly larger in length and height, averaging about 8¼ inches and 2½ inches respectively in these dimensions. The brick surfaces were rough, and the bricks were frequently cracked even if they had not been exposed to the weather. When a brick was broken the interior structure was usually non-homogeneous, with coarse lumps of clay and stones scattered throughout.

Bricks obtained from some of the buildings are shown in Fig 2 along with two bricks of modern manufacture (by

the extrusion method) for comparison. The interior structure of most of the old bricks was similar to that of the broken parts shown.

Mortar

The mortar used in masonry construction in the early days of building in the Aultsville area was undoubtedly composed of lime and sand. It has been reported⁽⁶⁾ that, "The burning of lime has been carried on in the counties bordering the St Lawrence since the first settlers began to build houses of stone and brick and to use whitewash. The remains of the crude pot kilns used for lime-burning are scattered all over the region. As boulders collected from the fields constituted the main source of supply of limestone the kilns were placed wherever convenient, and without reference, in most cases, to rock outcrops. The kilns were, generally, roughly built, and designed for a small output for local use only.

"With the growing scarcity of wood for fuel, and the decline of building, these small kilns went out of use, and were allowed to go to ruin. By that time, too, owing to increased transportation facilities, lime was beginning to come in from more distant points where it could be made to better advantage . . ." Some lime kilns were built at quarries which were opened up along the river for stone for canal construction, such as at Mille Roches shown in Fig 1.

A description of the preparation of lime by early settlers in Upper Canada has been given⁽³⁾. "Lime-burning was a process often connected with the

logging bee. Large quantities of lime were necessary for filling cracks in the walls and building chimneys for the log house. It could be purchased at from 6d to 1s3d per bushel but many settlers burned their own. The timber from at least half an acre of land was formed into an immense pile on top of which was constructed a frame in which to place the limestone. Some twenty ox-cart loads of the stone were then drawn and thrown on top of the heap, after being broken into small pieces by a sledge hammer. The pile was then fired and would be consumed over night though the red coals remained hot for a week, when the white lime could be collected . . . Colonel Strickland held such a lime-burning in 1826 at his farm in Douro Township, Peterborough County, and wrote that about one hundred bushels of lime were obtained . . ."

The burned lime, or quicklime, when placed in a trough of water reacted chemically with it to form a thick paste or putty. This paste, mixed with sand, produced mortar for use in masonry work.

Wall Construction

Even though wood was abundant in the early days of the settlements in the Aultsville area, it was not the only building material and there are indications, as shown below, that masonry of stone or brick appeared very early, often in combination with wood. Reference may be made however, to the important early timber industry of the area which has been described in (1). Huge pine trees, 90 to 120 feet in length and 40 to 48 inches in diameter when dressed, were exported from the region for use as ship's masts. White oak, beech and maple were abundant also and large quantities of these last two were burned to obtain ashes for making potash which was exported to Europe from the area in the early days. Depletion of the forests apparently occurred early as even by 1861 it was stated, "the pine is now almost a stranger" (1).

With a few exceptions when dimensioned stone was used, as in St Paul's Church in Aultsville, the foundation walls of the buildings were of rough field-stone masonry, the stones being irregular in size, shape and type. A cellar was provided in each building, with a clearance of about 7 to 9 feet between the earth floor and the joists. Most cellars, incidentally, contained a

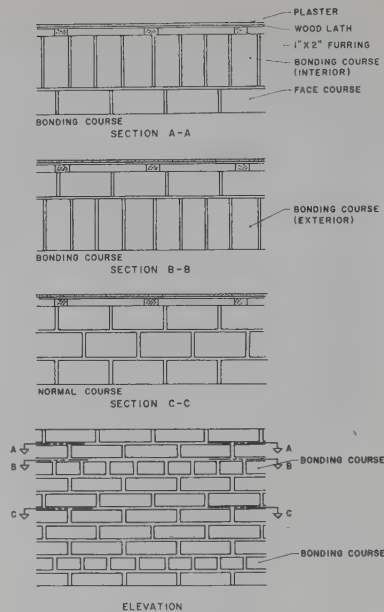


FIGURE 3
SOLID WALL CONSTRUCTION

large rectangular water reservoir of concrete or brick, supplied with rain collected from eaves troughs. The foundation walls of the houses were about 22 to 24 inches thick; when the brick wall was built on it, about 10 or 12 inches of the foundation remained on the inside to support the floor joists. These were often logs, levelled on the top and bottom.

Three general kinds of above-grade brick masonry walls were observed in the buildings examined. One type of wall was constructed of solid brickwork about 12 inches thick, the width of three bricks laid side-by-side with mortar joints between. The inside of these walls particularly in older buildings, often was finished by a plaster coat applied directly to the brick. Frequently, however, furring strips and wood lath were used and plaster was applied to give the interior finish. The furring strips (1 by 2 in) were nailed to 2 by 4 boards. These were incorporated in the brickwork at intervals to take the place of one of the brick courses on the inside of the wall. In a few buildings, "nailing bricks", pieces of 2 by 4 wood cut to a brick-length were used instead of the 2 by 4 boards. These were incorporated at intervals in the inside courses of the brickwork and the furring strips were subsequently nailed to them.

Two main types of bonding patterns were used in the brickwork, the "common" bond and the "Flemish" bond. In many buildings, the former was

used in the side walls and the latter in the front wall to give a more attractive appearance to the front of the building.

The second general type of brick wall encountered in buildings in the Aultsville area was a sort of "cavity" wall. It consisted of two walls, each a single brick in thickness, separated by an air space about 2 inches wide. The two walls were bonded together every 6th or 7th course by header bricks alternating in the bonding course with the normal stretcher bricks. The bonding bricks did not extend completely across the two walls; the space behind each was filled with mortar, level with the surfaces of the other bricks.

As the wall was built up, plaster was applied to the inside surfaces of both outer and inner walls. Furring strips, lath and plaster were used to finish the interior. For the 12-inch solid walls previously described, 2 by 4 boards in place of courses of bricks of the inner wall, were used as nailing boards to which the furring strips were attached. These walls usually appeared to have been very carefully constructed, but some were carelessly made, the cavity space being irregular in width and bridged in many places by mortar. The "cavity" type of wall is shown in Fig 5.

The third general type of brick wall encountered corresponds to our present "brick veneer" construction, in which a wood frame structure is enclosed by a brick wall one brick in thickness (Fig 6). In the buildings examined, however, the space between



FIG 4 Flemish bond, west wall of church at Moulinette, erected before 1871.

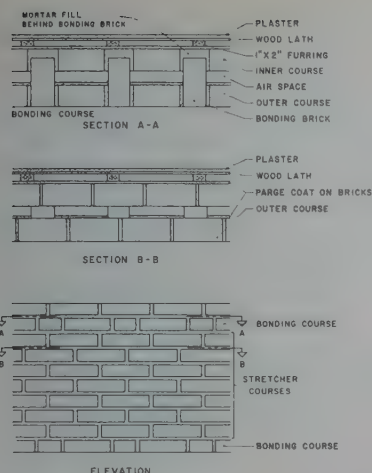


FIGURE 5
CAVITY WALL CONSTRUCTION

the wood studs was filled with brickwork. The "common bond" walls were constructed of 5 or 6 "stretcher" courses (bricks laid end-to-end), then a "header" course (bricks laid crosswise). The header course of the outer face of the wall was followed by another header course to the inner face of the wall, as shown in Fig 3. In the "Flemish bond" walls, each course of the outer face consisted of an alternate header and stretcher brick, with each header brick being centred over the stretcher brick of the course underneath.

The walls of the Wesleyan Methodist Church (St Andrew's United) at MoulINETTE, probably built well before 1871, were constructed in Flemish bond, similarly the Roman Catholic Church at Dickinson's Landing, built in 1863 had its front wall constructed in Flemish bond, but the side and back walls were built in common bond. The outer face of a wall of Flemish bond construction is shown in Fig 4. This building is the MoulINETTE church and it is interesting to note that the inscriptions made in the wall many years ago have worn well.

A modified type of Flemish bond, in which the bonding courses of alternate stretcher and header bricks on the outer face of the wall were separated by 5 or 6 normal stretcher courses, was observed in several of the solid brick walls. In a house being demolished at Mille Roches, it was observed that the wall construction was of Flemish bond but many "false" headers had been used in the outer face. These were half-bricks which did not extend into the brickwork behind to act as bonding bricks. In these buildings the brick veneer was fastened to the wood frame

(2 by 4 studs and 1-inch sheathing board) by nails driven into the sheathing and projecting into the mortar joints. Joints containing these bonding nails were used at intervals up the wall. An air space about one-inch wide separated the brick veneer from the wood sheathing which was covered by a heavy paper.

Brickwork was built in the space between the studs and the inner surface was plastered. In some buildings the bricks were laid on edge, while in others, they were laid in the normal manner. The bricks used for filling the stud spaces were invariably of a soft quality; judging from their softness and colour they must have been very much under-burned in their manufacture. Strips of wood lath were nailed to the studs and to furring strips attached to the brickwork between the studs. Plaster was then applied to finish the wall.

The use of brick masonry in combination with heavy timber construction in several old houses in Aultsville should be mentioned. The timbers were fitted together by mortise and tenon joints, and large wooden pegs were then passed through holes in the timbers to secure the two parts. One type of this construction is shown in Fig 7 (from notes and sketches made by W. G. Plewes of the Division of Building Research). In this building the frame was formed of heavy timber members (10 by 10 and 8 by 8 inches) with some lighter 4 by 4 members. The spaces between the horizontal 10 by 10 member on the foundation and the vertical 8 by 8's were filled with brickwork. The bricks were laid crosswise to the wall, spanning the 8 inches of the vertical members. Plaster was applied to the brick surfaces on the inside to finish the wall while on the outside, sheathing boards vertical, 1-inch thick) and horizontal tapered siding were applied.

A similar construction but probably not as old, was observed in another house in Aultsville. Here, the vertical members were 8 by 8's with 2 by 4 vertical members between them about 4 feet apart. Horizontal 2 by 4's equidistant, were connected to the vertical members and the spaces between were filled with rough brickwork one brick plastered on the inside surface. Wood strips were nailed to the back of the horizontal 2 by 4's and to these were attached vertical furring strips. Lath and plaster were used to finish the interior. The outside finish of this particular wall consisted of horizontal boards, about 1 by 6 inches with tongue and groove joint, nailed to the vertical

members. The over-all wall thickness was 10 inches.

Combination timber and masonry were described in 1860 by the Borough Engineer of Liverpool, England ⁽¹⁰⁾, and the use of this construction in Aultsville may reflect the background of some of the builders who came to the area. The description states, "... the timber ... is used only in sufficient quantity to form a frame-work which shall insure the stability of the structure; and the interspaces or panels of the frame are filled in with masonry of small stones, with thin brickwork, or with lath and plaster. This mode of construction is in the north called 'post and pan' or 'post and petrail' and the square of framing is called a 'pan'; but such erections are more universally called 'half-timbered houses'".

The use of brick masonry to fill the stud spaces of wood-frame buildings was a common characteristic of early construction in New England and the

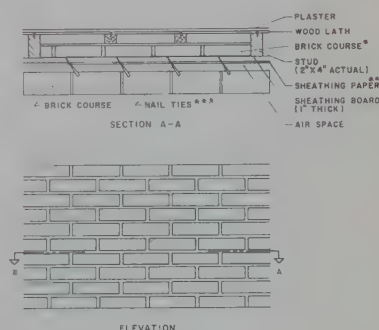


FIGURE 6
BRICK VENEER CONSTRUCTION

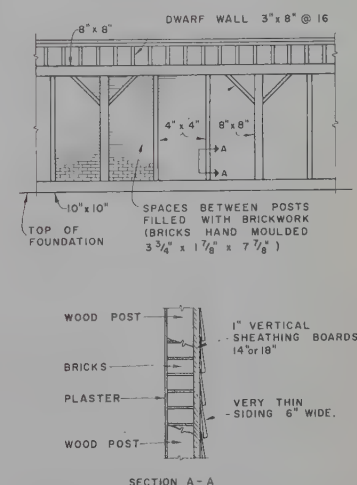


FIGURE 7
WOOD FRAME AND BRICKWORK WALL
CONSTRUCTION



FIG 8 Wood frame and brickwork construction.



FIG 9 Cracks in bricks and mortar joints.

Báby house erected at Sandwich in south-western Ontario in 1790 (by a fur-trader) has been cited as an early Canadian example of this construction ⁽¹¹⁾. Figure 8 shows wood frame and brickwork construction in Aultsville.

With only a few exceptions when stone lintels were employed, arches were used in the brickwork of the buildings to carry the wall over door and window openings. The arches were of many types, both flat and curved. In some walls, it was observed that only the outer course of bricks was arched; the brickwork behind the arch was carried over the span on heavy timber members.

Many of the houses in the area were composite structures in the sense that additions to the original were made from time to time and different materials and methods of construction were used. In one example the original building of stone masonry was built about 150 years ago. The brick addition (probably of brick veneer construction on wood frame) was made about 75 years ago.

A summary of the types of wall constructions used in buildings examined during this study is given in Table I.

Weathering of Brick Masonry Materials

All the walls of the buildings studied in this survey were found to contain cracks. These were usually visible, however, only under close observation. Mortar joints and individual bricks were cracked, and frequently there were continuous cracks in the walls ex-

tending vertically through bricks and mortar. For an area of a wall of one building, a record was made of the number of bricks containing cracks which were plainly discernible from a distance of about five feet. These bricks amounted to almost one-third of the total in the selected area of the wall.

Figure 9 shows the nature of the cracking in bricks and mortar joints. One of the bricks is cracked in two places, vertically to the height of the brick, and cracks extending across the mortar joints are also visible. The depth of the cracks was not determined. The cracks in the walls and in the individual bricks and mortar joints may have resulted from weathering, differential movements of parts of the buildings, or earthquake shocks. Earthquakes causing damage to structures occurred in the area in 1860 ⁽¹⁾ and 1944 ⁽⁴⁾, and probably at other times.

In some buildings spalling or surface decay of bricks and mortar had taken place. This seemed to depend greatly on the orientation of the wall of the building. A striking example of this was the church at Dickinson's Landing (erected 1863). This building had been constructed on a slight hill overlooking the river, and was completely unshielded on the south, east and west from the weather. The wall construction was 12 inches of brickwork with furring strips, lath and plaster on the interior. The wall facing west had been little affected by the weather, but the one facing east contained many spalled bricks some of which had decayed to a depth of one inch. For comparison, corresponding areas of the west and east walls are shown in Fig 10.

The tower of the church appeared to have been constructed later than the main part of a different type of brick and wall construction. The walls of the tower, particularly the east wall, contained many cracked and spalled bricks, and the east buttress had been severely damaged (Fig 11). The "directional" weathering effect was also observed in the yellow-brick church at Moulinette. In this building, however, there was very little damage from spalling of the bricks; only a few bricks of the east wall showed even a slight sign of decay. The mortar joints of the walls had been tooled, apparently when first built, to produce a shallow rectangular depression in the centre of the joint. The marks of this tooling were clearly retained in the joints of the west wall, but in the east wall the surface of the joints was sufficiently eroded that the mark of the tool had been removed.

The usual design of the buildings was such that the roof extended beyond the walls to produce an overhang of eighteen inches or more. This overhang was an important factor in protecting the walls from excess dampness and the adverse weathering effects associated with it. Boards covering the brickwork near the top of the wall gave additional protection. Brickwork of chimneys and other parts of buildings exposed freely to the weather without protection usually showed evidence of decay. The chimneys of all the buildings examined were badly weathered and contained cracked, spalled bricks and open mortar joints; many were plastered on the outside to repair the damage. Many of the chimneys probably must have been replaced after the

buildings were first erected, since the bricks of several chimneys were of a different type than those of the walls.

The relatively poor weathering qualities of freely exposed brickwork were well illustrated by the bell tower of St Paul's Church in Aultsville (erected in 1887). The walls of the tower were finished at the top as parapet walls covered with stone caps. Several openings were provided in the walls near the top. The bricks of the upper two-thirds of the tower differed from those of the remainder indicating that the brick facing, at least, of the upper part of the tower had been replaced. The east and west walls of the church were protected by a widely overhanging roof. The north wall, however, was afforded little protection from above since the top of it was covered by metal which projected only a few inches from the wall surface. Extensive areas of the wall were damaged, and the brickwork was patched in many places to cover the decay. The east and the west wall, however, showed very little weathering, probably because of the protection afforded by the overhanging roof.

Although the effects of weathering were obvious in several buildings, the walls of most of the buildings examined have remained serviceable, apparently affected in no harmful way by the weather. There were a few instances where the appearance of the brickwork was marred by decay of the materials, but the walls of these buildings probably would have continued to function satisfactorily for many more years. There was no indication of rotting or staining of the nailing boards or furring strips when walls were opened, indicating that dampness did not occur in the walls, or if it did, that it did not last long enough to cause damage. It was usually very difficult to open the wall by chiselling out the mortar or the bricks. After the opening was made, however, the bricks could be lifted easily from the mortar bed when given a slight tap. Pieces of mortar taken from the joints were quite friable and easily broken by the fingers. Many mortar joints had been incompletely filled, and it appeared to be common practice for the bricklayers who built them to "furrow" the bed joint, which left voids in the mortar. The vertical joints also, were often incompletely filled with mortar.

Although some decay of mortar joints and bricks was observed, on the whole the mortar was quite durable. the joints of some buildings erected over 100 years ago had been tooled

when constructed and the tool marks (presumably the original) could still be seen, although mortar surfaces were usually slightly eroded. The sand used in the mortar was very fine-grained.

Some bricks were observed which bore unusual marks (Fig 9). These were probably made during manufacture when the freshly moulded bricks were put out on pallets to dry; the soft surfaces of the bricks would be easily marked by the paws of cats or other animals which happened to walk on them. The burned bricks retained these impressions, and the clarity of the marks after 80 years or more of exposure to the weather gives some indication of durability.

The products of the old brick-making industry of the area were assessed generally in 1922. "Some of the red brick buildings were erected 80 years ago, and are still intact as far as the bricks are concerned. Weather seems to have had very little effect on them and there are a few buildings in which the bricks are spalling" (6). The buff bricks of the Moulinette area, used in the Methodist Church, were also mentioned. "These bricks show absolutely no indication of weathering, but on the contrary are hardening with age".

In general, this earlier assessment of the durability of the brick masonry materials used in the area has been confirmed by the observations made in this study.

Summary

A study was made of the history of building in the area along the St Lawrence River near Aultsville, Ontario and of the materials, methods of construction, and performance of some



FIG 10 East and west walls of the church at Dickinson's Landing (erected 1863), the east wall (bottom) showing much greater effects of weathering.



FIG 11 Spalled bricks and damaged buttress of church at Dickinson's Landing.



relatively old brick masonry buildings which were being demolished in connexion with the St Lawrence Project. The buildings studied ranged in age from about 75 to 150 years.

It was evident that brick masonry was used extensively in the very early settlement of the area. The materials were made locally. A brick manufacturing industry, consisting of 8 or 9 (or possibly more) plants was established early along the river front between Cornwall and Morrisburg; Aultsville itself had at least two brickyards. Kilns producing lime for mortar were also operated locally. These industries apparently ceased to operate by the end of the nineteenth century.

Four main types of wall constructions appeared to have been developed, the first two having been used in very early buildings in the area: (1) solid brick wall, approximately 12 inches in thickness (3 bricks), finished on the inside with plaster applied directly to the brickwork or to laths attached to furring strips; (2) wood frame walls of heavy timbers, the spaces between timbers filled with brickwork and the outside of the wall clad in wood; (3) brick veneer walls with brickwork (one brick in thickness) covering a wood frame and brickwork filling the stud spaces of the frame; (4) "cavity" walls consisting of two walls, each one brick in thickness, separated by about 2 inches of air space, with interior finish of furring strips, lath and plaster.

The walls of many of the buildings have stood for 150 years and still appeared highly serviceable. Some instances of decay and spalling of the materials, however, were noted. Freely exposed brickwork as in chimneys and towers was observed to have weathered poorly in several buildings with much decay and cracking. On the other hand, when the walls were protected by a considerable roof-overhanging the brick masonry materials generally appeared unharmed by weathering.

A general observation on the durability of buildings examined during this study is that the early builders in the Aultsville area possessed the ability to produce durable brick masonry materials, and to erect from them structures of long service life.

Acknowledgment

Information on the ages of most of the buildings studied was kindly supplied by V. A. Harrison, of the Hydro-Electric Power Commission of Ontario.

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TABLE I
Summary of Types of Walls Examined and Dates of Erection

| Wall Type | Construction Date (approx.) | Type of Building | Location |
|---|-----------------------------|------------------|---------------------|
| 1. Solid brickwork, 12-inches thick, plaster applied directly on interior surface | 1801 | house | Aultsville |
| | 1820 | inn | Dickinson's Landing |
| | 1838 | store | Aultsville |
| | 1840 | house (?) | Dickinson's Landing |
| | 1868 | house | Aultsville |
| | 1868 | house | Aultsville |
| | (?) | house | Aultsville |
| 2. Solid brickwork, 12-inches thick, furring strips, lath and plaster | (?) | house (?) | Aultsville |
| | 1808 | house | Aultsville |
| | 1855 | house | Aultsville (West) |
| | 1863 | church | Dickinson's Landing |
| | 1871 | church | Moulinette |
| 3. Brick "cavity" wall, furring strips, lath and plaster | 1879 | house | Aultsville |
| | (?) | house | Aultsville |
| | 1878 | house | Aultsville |
| | 1878 | house | Aultsville |
| 4. Brick veneer | 1895 | house | Aultsville |
| | 1895 | house | Aultsville |
| | 1878 | house | Aultsville |
| | 1878 | house | Aultsville |
| 5. Wood cladding with brickwork in stud spaces | 1883 | house | Aultsville |
| | 1888 | house | Aultsville |
| | 1895 | house | Aultsville |
| | (?) | house | Aultsville |
| 6. Solid brickwork 16 in. thick and 14 in. thick, plastered directly on inside | (?) | house | Aultsville |
| | (?) | house | Aultsville |
| | (?) | house | Aultsville |
| 6. Solid brickwork 16 in. thick and 14 in. thick, plastered directly on inside | 1902 | hall | Aultsville |
| | 1902 | hall | Aultsville |
| | 1902 | hall | Aultsville |
| | 1902 | hall | Aultsville |

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Nova Scotia Association Annual

(Continued from page 89)

Two social functions were held; the first, an informal evening for members, wives and guests at the Royal Canadian Engineers Mess in north Halifax. The second was the annual dinner and dance attended by 87 members, wives and guests. Four new members received their certificates at the dinner — Gregory Lambros, Jeffrey Cook, Rene LeBlanc and Asa Avramovitch.

L. J. Page



Hon Secretary L. J. Page and D. C. Mackay, Principal of the Nova Scotia College of Art, examine model of home and office of NSAA president J. L. Darby at the exhibit of work of Nova Scotia architects held in conjunction with the Annual Meeting of NSAA.

News From BC

Echoes are still heard following the departure from BC of the RAIC-CMHC Committee of Enquiry into the Residential Environment. Much of the noise in the daily press and elsewhere is unsympathetic to architects and architecture. It is to be hoped that the findings of the Committee will eventually reach a wide audience and that praise and blame, if any, is placed where it belongs. The *Victoria Daily Colonist*, in a lengthy editorial dated February 11, and artfully entitled "Architects of Dreamland", deserves an authoritative rebuttal. The final report of the Committee of Enquiry should provide this rebuttal.

Vancouver is in danger of losing its only green space in the downtown area. The area in front of the courthouse on Georgia Street is currently threatened by the possible expansion of courthouse facilities proposed by the Provincial Government. In spite of various constructive proposals by Vancouver's planning department and City Council it appears that courthouse additions are planned in Victoria which, if implemented, will virtually nullify attempts by the City to assemble land in the downtown area toward creating

a civic square where it belongs in the heart of the city. Local architects have joined with many other business and cultural groups in opposing the proposed expansion of the existing courthouse and are supporting the city's proposals which suggest a new courthouse one block south and an exchange of sites which the city is prepared to arrange with the Provincial Government. The outcome of this recent protest by the architects and others remains to be seen.

Information recently obtained from Vancouver architect Geoff Massey indicates that four well-known Canadian architects have been selected to compete in the design of a "Graduate College" for the University of Toronto. The competition and the eventual building will be executed under the sponsorship of the Massey Foundation. Congratulations are due to two eastern architects, John C. Parkin and Carmen Corneil, and two Vancouver architects, Arthur Erickson and Ron Thom. These people will be competing as individuals and are preparing designs to meet a June 6 deadline.

In Vancouver, plans are well advanced for the "Conference on Church Building and Architecture" to be held here on May 16 and 17. Four Vancouver architects are listed on the advance program and others are expected to participate in tours, workshops and discussions. The conference is jointly sponsored by the AIBC Vancouver Chapter and the Vancouver Council of Churches. It is believed to be the first of its kind in Canada and presents a rare opportunity for architects and their "clients" to get together on many problems in the design and planning of churches — a substantial part of architectural practice in BC in recent years. This is another practical answer to the public relations dilemma of BC architects a few years ago.

Sculptor Tom Hardy of Portland, Oregon, was a guest speaker at the last meeting of the Vancouver Chapter which was also attended by members of the BC Institute of Sculptors. Mr Hardy discussed his work and showed the meeting an excellent series of colour slides illustrating the forms which he has produced using wire and metal in various ways. He is currently engaged on a major sculpture for the US Embassy in Oslo, Norway, by Saarinen. Vancouver architects Birmingham and Wood have commissioned Tom Hardy to do a fountain sculpture for a large residence here.

Item from the AIBC section in the *Journal of Commerce Weekly* of February 27: "Congratulations to the *RAIC Journal* on its effective face lift."

All Vancouver architects we have talked to like the new look of the January issue. Recent AIBC Council deliberations include, we understand, a certain amount of soul searching in an effort to devise ways and means for elevating standards of work and controlling competency of members of the profession. Also, steps are being taken to make the architects heard in planning for Canada's Centennial celebrations in 1967.

C. A. Tiers

"Structure & Architectural Form": Montreal Study Group

The third meeting of the Montreal Study Group was held on February 9th, when J. S. de Stein, Professor of Civil Engineering at McGill University, presented his views on the topic: "Structure and Architectural Form". He pointed out that the separation between architecture and engineering took place between 1750 and 1850, as a result of advances in structural analysis, and that this had the result of making engineers concentrate on technology, perhaps even to the detriment of the social aspects of design. In the latter respect, he instanced the "grotesque spans" recently constructed across the St Lawrence Seaway. At the same time, he pointed out that architects are not always successful at creating beautiful structures, and felt that few of the architect-designed buildings constructed in Montreal during the last twenty-five years could be considered adornments to the city.

With regard to the ambition, experienced by many architects, to incorporate novel three-dimensional space-structures into their buildings, Prof. de Stein observed that since such structures are usually highly indeterminate, their design usually requires research on models which may take as much as two years to build and test; a luxury which few clients can afford. He thought that, in general, architects would derive most benefit from recent advances in civil engineering if they contented themselves with using materials properly. At the moment, architecture seemed to him to be too much influenced by arbitrary fashions for abstract shapes.

The immediate reaction to these remarks took the form of two questions, posed by Fred Lebensold and the President (Jean-Louis Lalonde) respectively. Firstly, it was asked why civil engineering students are not taught the basic philosophy of architectural design at university, so that they could at least understand what architects are trying to do. Secondly, it was asked why more engineers did not follow the example of Buckminster Fuller in spending time

studying ideal structures for their own sake. Professor de Stein's reply to the first was that the need to give engineers instruction in the Humanities was now gaining wide recognition among educationalists; and to the second, that no educational system in the world could train more than a few highly gifted minds to do the kind of research which novel structural forms demanded. Moreover, among those few engineers capable of doing such advanced analysis, ninety per cent were devoting their time to two-dimensional structures, such as rigid frames, rather than to those indeterminate structures which architects now favoured — a contention supported by Phil Harris (also a professor of civil engineering at McGill), who pointed out that even a simple cylindrical shell involves enormously complicated analyses when large apertures or unusual end conditions are involved.

The discussion so far had naturally implied that such research was of great importance to architects, yet it was precisely the preoccupation with exciting structural systems which was next challenged. Peter Collins thought it symptomatic of a confusion between the functions of the two professions, due to the fact that architects had never bothered to ask themselves why the separation had occurred in the first place. Under the influence of Siegfried Giedion, architects accepted unquestioningly the idea that the greatest pioneers of the New Architecture were engineers, and that the only way to produce worthwhile buildings (ie, designs which would interest editors of architectural periodicals) was to incorporate new, exciting structural forms. In his view, civil engineering became a distinctive branch of construction because, in about 1750, bridge spans were increased beyond the natural limits of stereotomy. The difference between architecture and civil engineering was thus essentially the difference between short-span and long-span structures.

Concerning the aesthetic qualities of both architecture and engineering, John Bland remarked that Canadians should never overlook the influence of the Depression. Buildings and bridges in this country still suffered from the fact that for twenty years clients were obliged to insist on absolute economy. Thus the ugliness of recent Montreal bridges (which a previous speaker, Paul Trépanier, had severely criticised) was due to this traditional search for the cheapest solution.

The remainder of the discussion was mainly concerned with bridges, especially ugly bridges; a fact in due course deplored by the secretary when called

upon to propose a vote of thanks. He remarked that although there were thirty-two Quebec architects present (and, what was even more opportune, six hundred Quebec architects absent), it was apparently easier to criticize the work of absent engineers than the work of absent architects. This might indicate a regrettable complacency or complicity on the part of architects. On the other hand, it might emphasize a point he had earlier tried to stress, and which André Blouin had supported, namely that the design of short-span structures had nothing to do with creative engineering, but was exclusively the architect's concern, just as creative engineering, being essentially a matter of long-span structures, had little in common with architecture, but was concerned with problems of design which architects were not professionally competent either to criticize or solve.

P.C.

Historic Buildings Committee of RAIC Given Canada Council Grant

The Canada Council has announced a grant of \$3,500 to the RAIC Special Committee on the Preservation of Historic Buildings for financial aid in establishing a national inventory of buildings of historic importance. E. R. Arthur in Toronto, is Chairman of the Committee.

Executive Director Appointed to National Centenary Committee

Less than nine months since the 1959 RAIC Annual Assembly at Windsor passed a resolution urging the Federal Government to establish a national committee to plan the observance of Canada's Centenary in 1967, the Executive Director of the Institute at Ottawa, Robbins Elliott, has been named to serve on a seven-member provisional committee.

The Committee was established at a two-day meeting of voluntary, non-governmental organizations which met at Montreal on February 11-12. Committee chairman is Col. Hugh Wallis, President of the Montreal Museum of Arts. Representing the architectural profession at the meeting, which was jointly sponsored by the Canadian Citizenship Council and the Canadian Association for Adult Education, were Mr Elliott and Messrs. Peter Barott and Paul O. Trépanier, PQAA Council members.

Nervi Awarded 1960 RIBA Royal Gold Medal

The Royal Gold Medal of the Royal Institute of British Architects for 1960 has been awarded to Pier Luigi Nervi of Italy. Mr Nervi is Professor of the

Technology and Technique of Construction, Faculty of Architecture, University of Rome. His honorary degrees and distinctions include Hon FAIA 1956, Hon Member American Academy — Institute of Arts and Letters 1957, Foreign Member of the Royal Academy of Fine Arts, Stockholm 1957. His publications include *Arte o Scienza del Costruire* 1945, *El Lenguaje Arquitectónico* 1952, *Costruire Correttamente* 1954, and he has also contributed various articles on architecture to Italian, French, English and American technical journals.

RAIC College of Fellows Scholarship Increased

The RAIC College of Fellows Scholarship has been authorized for 1960. The amount of the Scholarship has been increased this year to \$2500.00. The Conditions of Award have been amended this year insofar as the Scholarship is open only to those who have graduated from a Canadian School of Architecture in the five-year period prior to January 1, 1960. Application Forms are available by writing to the Royal Architectural Institute of Canada, 88 Metcalfe Street, Ottawa 4, Ontario. Final date for receipt of Applications from candidates is April 15, 1960. The name of the Scholarship Winner will be announced by the President of the RAIC, at the Annual Dinner in Winnipeg on Saturday, June 4, 1960.

La Bourse d'étude du Collège des Agrégés de l'Institut

On a autorisé l'octroi de la Bourse d'étude du Collège des Agrégés de l'Institut pour l'année 1960. Le montant de la bourse a été porté cette année à \$2,500. Les conditions d'admissibilité ont été modifiées cette année, de sorte que la Bourse ne sera accordée qu'à un candidat qui a obtenu son diplôme d'une école d'architecture canadienne au cours des 5 années qui ont précédé le 1er janvier 1960. On peut se procurer des formules de demande en s'adressant à l'Institut Royal d'Architecture du Canada, 88, rue Metcalfe, Ottawa 4, Ontario. Nulle demande ne sera acceptée après le 15 avril 1960. Le nom du boursier sera rendu public par le président de l'Institut Royal lors du dîner annuel, à Winnipeg, le samedi 4 juin 1960.

LEBLANC & GAUDET, architects and engineers, of Moncton, N.B., wish to announce that Mr Jacques Roy, B. Arch. MRAIC, has joined their firm as an associate architect, and henceforth the firm shall be known as Leblanc, Gaudet & Associates, Architects & Engineers.

Package Deal Committee Conducting National Fact-Finding Survey

At the end of February letters were being issued by Package Deal Committee Chairman Colin Copeman of Montreal to the nine members of his committee in all Associations, pin-pointing basic terms of reference for a fact-finding survey of the package deal problem.

The Executive Committee of Council established the committee last fall after a 1959 Annual Assembly resolution had advocated that an independent study be commissioned by the profession.

Package Deal Committee members are as follows: British Columbia — John Dayton, Vancouver; Alberta — Hugh Seton, Edmonton; Saskatchewan — Dan Stock, Regina; Manitoba — Cecil Blankstein, Winnipeg; Ontario — L. D. Kyles, Hamilton; Quebec — Ian Martin, Montreal; New Brunswick — Douglas Jonsson, Fredericton; Nova Scotia — Henry Romans, Halifax; Newfoundland — W. J. Ryan, St John's.

It is intended to forward, through each Provincial Association office, a questionnaire prepared by the Package Deal Committee to each registered architect in Canada. Although aware of the fact that only a limited percentage of the national membership has directly encountered package deal operations, the fact-finding committee hopes to make the coverage, and the subsequent reporting, as broad and comprehensive as possible.

Architects who have case history examples to cite, as a result of competing with package dealers, are asked to complete the questionnaire at once and return it to the appropriate Association Secretary in a stamped, addressed en-

velope to be provided.

Look for the Package Deal questionnaire to reach your desk on or about April 1st.

The work of this Committee is vital to the profession. Assist the fact-finding process in every way you can.

Seminar at MIT

For one week, July 11 through 15, 1960, MIT will offer a Summer Seminar: "*Theory and Criticism in Architecture and City Planning*". It is intended for teachers, practicing architects, city planners, critics, and historians. There will be lectures, discussions, tours to new buildings at MIT, Harvard and Wellesley; and on the concluding day two internationally known architects will explain and defend their recent work. Among the staff of lecturers will be architect Pietro Belluschi, artist Gyorgy Kepes, critic John Burchard, political analyst Robert Wood, city planner Kevin Lynch and architectural educator Lawrence B. Anderson. For a pamphlet showing the program, write Professor Albert Bush-Brown, Executive Officer, Architecture, Room 7-346, MIT, Cambridge, Mass.

Irving Grossman to Visit India

The Canada Council has awarded a travel grant to Irving Grossman of Toronto to enable him to visit India to carry out a comparative study of the relationship of painting and sculpture to architecture in Asian and Western Societies. Mr Grossman is a 1950 graduate of the University of Toronto and is in private practice. He lectures at the University of Toronto School of Architecture.

A Roving Reporter at the OAA (Continued from page 114)

ter luncheon and the Chairman was Mr Peter Wilkes who called on his father to say grace (a nice gesture I thought) and on Mr Pentland to introduce the speaker in the French language. Whether Mr Pentland was incapable of such a feat, or whether he looked down from the rostrum on a very monoglot audience, I don't know, but he decided to introduce our guest in English. Peter Barott's talk was exactly what was needed for an after luncheon speaker — a nice combination of invidious comparisons and quite irrelevant statistics which we all enjoyed. His Worship the Mayor of all the People was present, but was not, for once, on the program. He had only two weeks before made the best speech of the day when he was called upon, without warning, to say something

about the Le Corbusier show. He said his introduction to architecture was quite recent, but no one had told him of Le Corbusier which, till now, he thought was a brandy! After that, the formal panegyrics, and what not, seemed awfully dull.

In conclusion, a very good president retires to his rocky fastness at the head of the lakes taking with him the respect, the gratitude and the affection of all the members of the Ontario Association of Architects. Lyndon McIntosh steps down and his place is taken by James Strutt, the youngest president in the seventy years history of the Association. As one of his old professors, I have watched his career with ever increasing interest. His achievements as a practising architect are matched to an unusual degree by

Letters to the Editor

Editor, RAIC *Journal*:

... I am delighted to observe that the *Journal* is on the way back up, and I sincerely hope the trend continues. The new size and cover are quite successful.

William A. Watson, Belleville

Editor, RAIC *Journal*:

Just a line to say that I thought the January issue of the *Journal* was an attractive one throughout; also to thank you for the trouble you took in the presentation of our building.

W. E. Fleury, Toronto

Editor, RAIC *Journal*:

We enjoyed reading the RAIC *Journal* of January 1960, but would like to draw attention to an error in the reference to materials used in the new Faculty of Dentistry building. The interior partitions and column fireproofing are of exposed lightweight Haydite masonry, and not lightweight slag block.

H. I. King,
Cooksville-Laprairie Brick Ltd

Texaco Student Design Awards

John J. Harkness, fourth-year student at the University of Toronto School of Architecture, won the 1959 Texaco Canada Ltd student competition award for service station design. Second and third place awards went to Taivo Kapsi and J. Gordon Smeaton, both of Toronto. All seven entries in the competition were by University of Toronto students. Members of the Jury were Harry B. Kohl, Chairman, George Abram, Henry Fliess, J. P. Cupiss, assistant division manager and E. W. Cockerline, assistant manager, Operations, of the Texaco Company.

his untiring service to the profession, and his interest, when he can show it, in the development of the student who refuses to steer a middle course. That was the kind of predicament in which he frequently found himself as a student, and it is, therefore, with more than ordinary curiosity and complete confidence that we shall watch the development of the OAA under his guidance in the critical year that we face today.

Also in conclusion, we must say, as a roving reporter, that the staff work of Mr John Miller exceeded, if possible, the smooth running machine of previous meetings. It is a matter, not merely for congratulations, but sincere thanks to him, Mr Cosby and the always cheerful and ever competent ladies at 50 Park Road.

E.R.A.

THE INDUSTRY

For Bathrooms

A special sales workshop was held in February by Mueller Ltd, Sarnia, Ontario, to introduce the new Beauty-craft MARK III bathroom fixture trim. The new line is described as a distinct departure in plumbing fixture trim and as custom designed in a moderne motif. Demonstrations were conducted on all products made by the company for the gas industry and water utilities, as well as Streamline plumbing products.



Loudspeaking Telephone

A supplementary communication facility has been announced recently by Ericsson Telephone Sales of Canada Ltd. Named "Ericovox", the pyramid-shaped unit contains microphone, loud-speaker and amplifier, and may be connected with any Ericsson private automatic exchange. Exploitation of the pyramid shape gives distribution of speech in all directions through the slotted base, while the microphone in the apex picks up sound equally from the full perimeter. The system is voice-

operated, i.e. speech is transmitted in one direction at a time and there is no talk-listen key. This principle enables fitting loudspeaker and microphone under one cover, with no feedback, according to the manufacturer, who claims the quality of voice transmission is unusually high. Detailed information is available from the company, at 130 Bates Road, Montreal, P.Q.



Ceiling Lights

Two new incandescent fixtures introduced by J. A. Wilson Lighting and Display Limited, 280 Lakeshore Road, Toronto 14, are described as featuring modern simplicity in form and design. Concealed fastening devices leave fixture lines clean and unbroken, and excellent diffusing qualities are claimed for the Silvaglow glassware. Hotspots are said to have been eliminated through scientific design of the glass shapes, and three thermal barriers prevent transfer of heat to the ceiling. All electrical connections are made within totally-enclosed metal boxes. Installation and maintenance are reported as simplified, no tools being required, and three different sizes permit a variety of applications.



Light and Air Diffuser

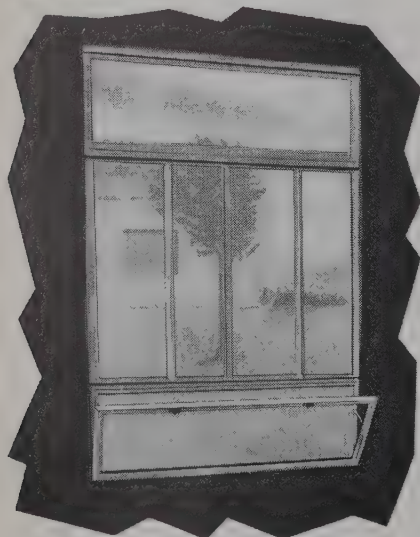
Enquiries have been frequent for a recessed air diffuser incorporating an enclosed light troffer unit. To meet such requirements, a design claimed to be unique has been announced by Barber-Coleman of Canada Ltd, 6 Leswyn Rd, Toronto. It is available in 1' x 4' and 2' x 4' sizes, accomodating two, three or four fluorescent tubes. Air diffusion is through slots along both sides of the fixture, and an expanding cone damper to control volume is accessible by unlatching the bottom of the diffuser. Discharge air is said to be completely separated from ballasts, tubes, and reflecting surfaces.



Absorption Control in Brick

Information on a new surface-treatment for bricks is contained in a folder (Form No 8-308) and a reprint from *Brick and Clay Record*, (R-8-303) issued by Dow Corning Silicones Limited, Tippet Road, Downsview, Ontario. In this system, the bricks are treated by the manufacturer with a dilute solution of sodium silicate solution. It is stated that, by reducing the water absorption rate of the brick, most efflorescence and dirt pickup are eliminated. The product is identified by the name "Silaneal", and an intensive testing program was utilized to provide precise criteria for specifying the procedures to provide given characteristics in respect to absorption. Advantages claimed include: preservation of appearance; reduction of costs through faster construction; and minimizing of efflorescence.

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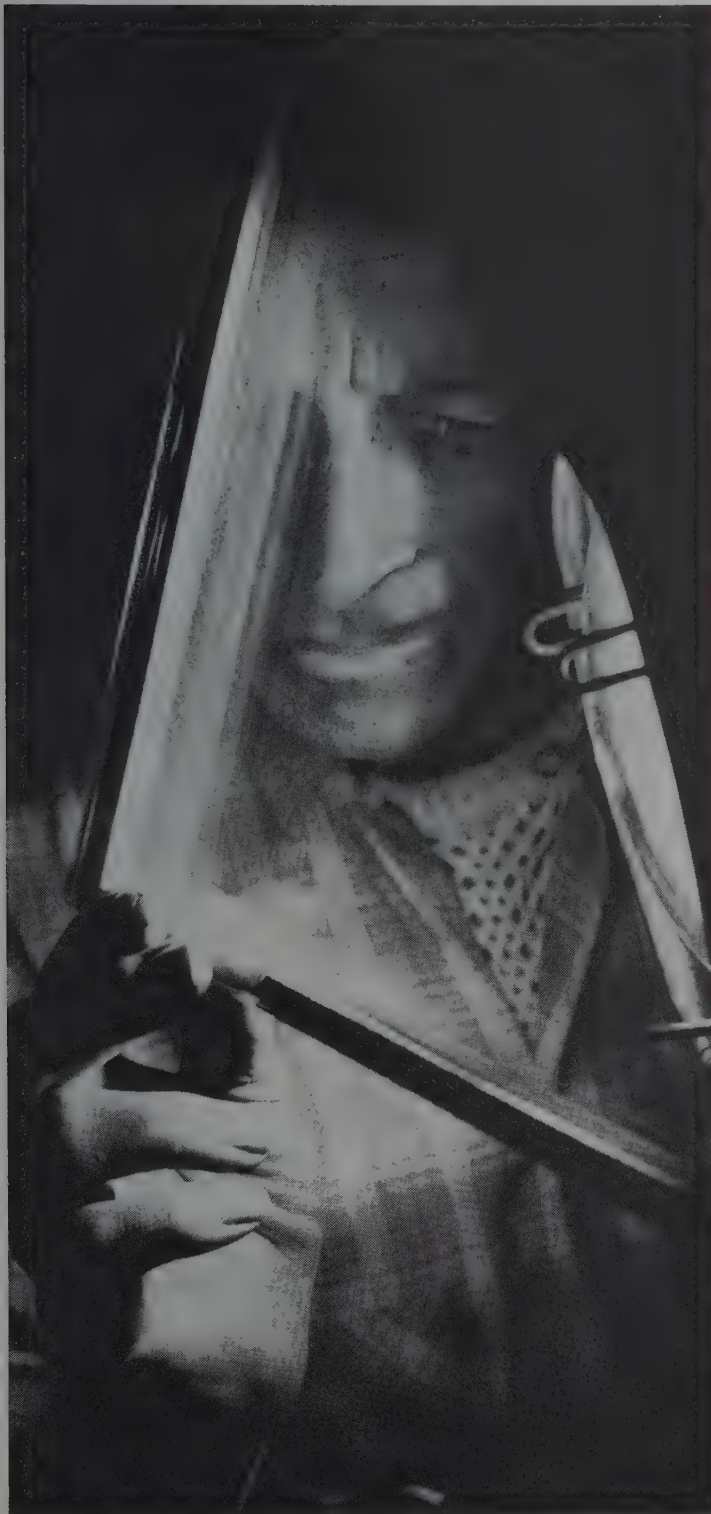
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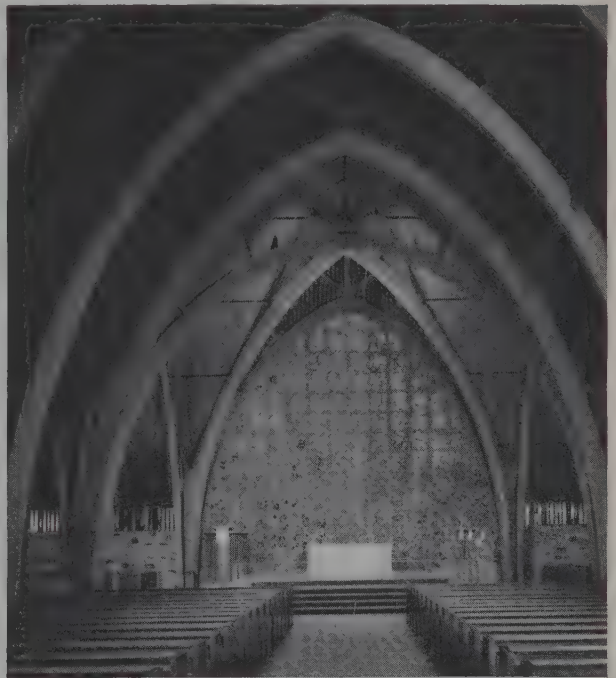
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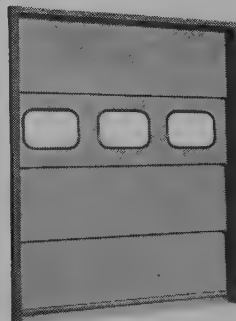
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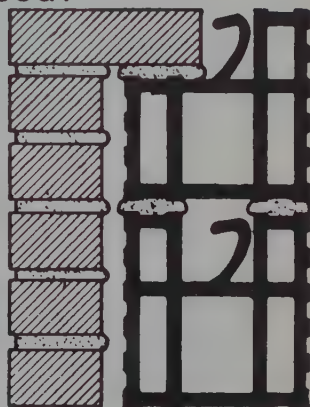
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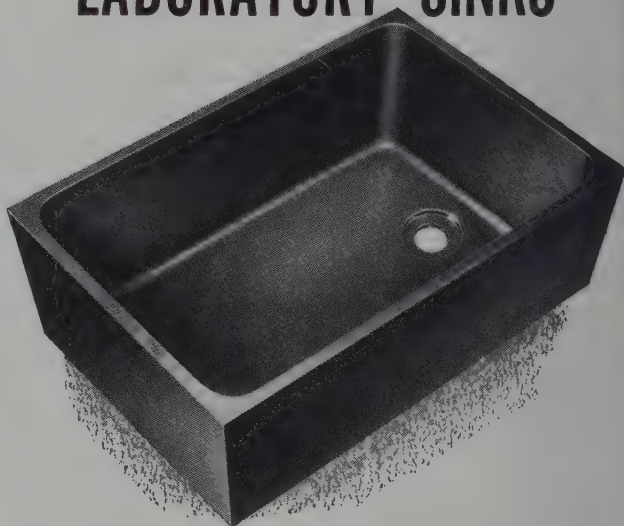
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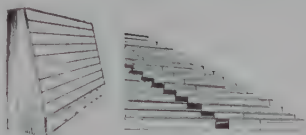
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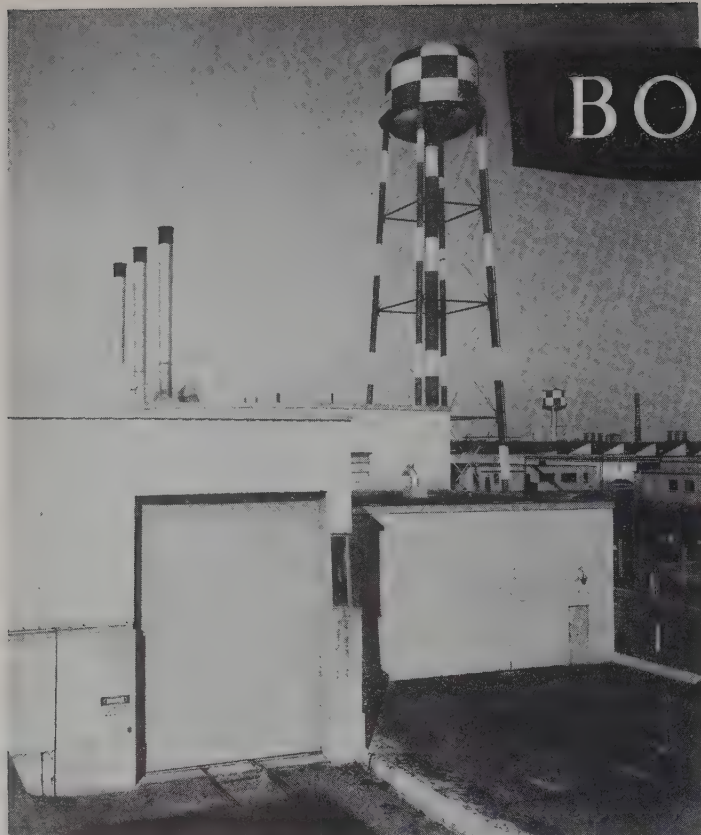


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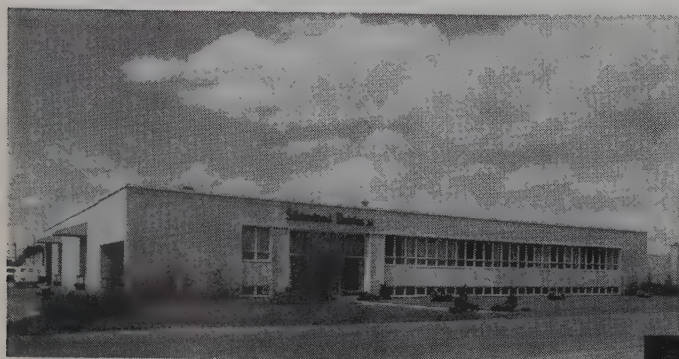
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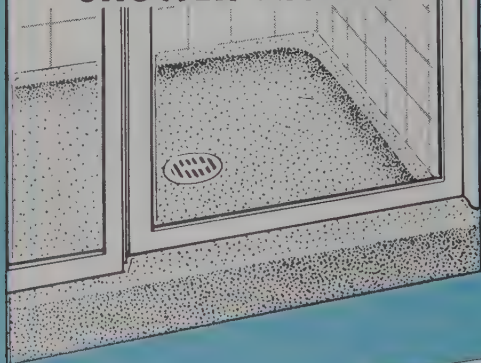
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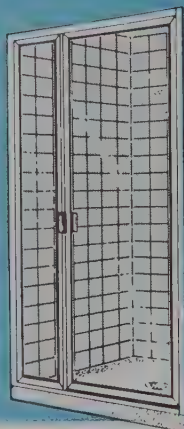
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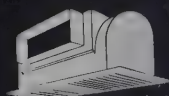
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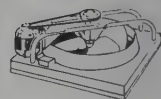
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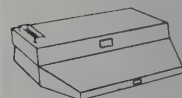
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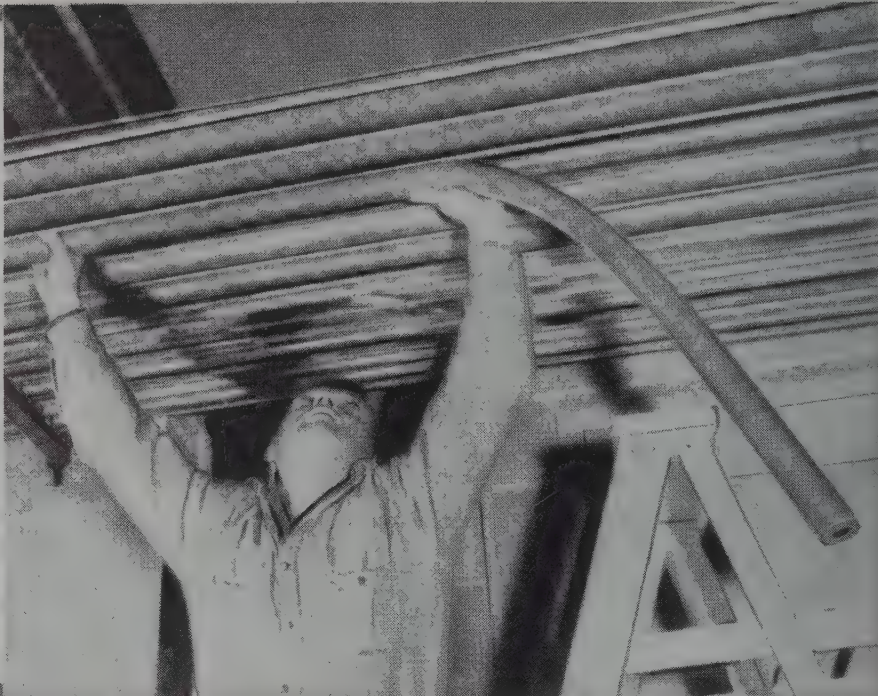
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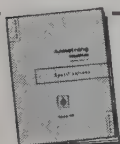
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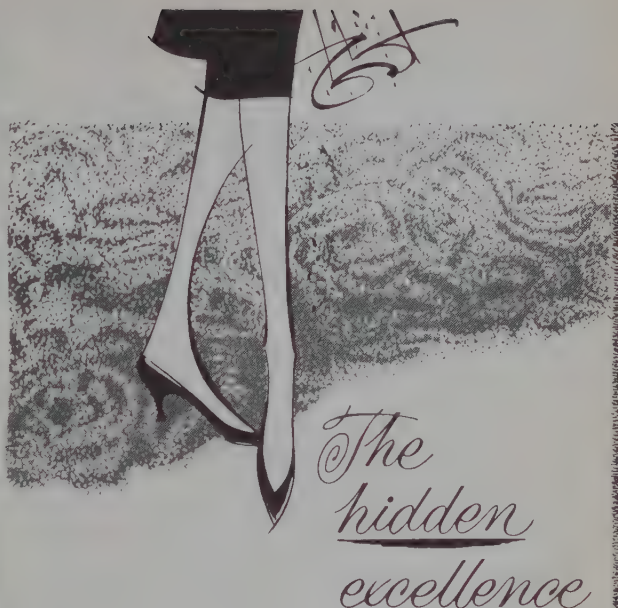
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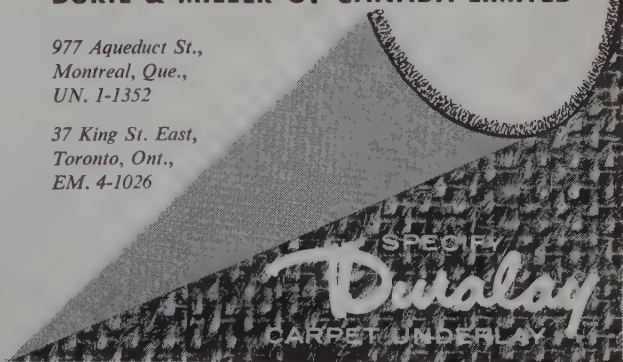
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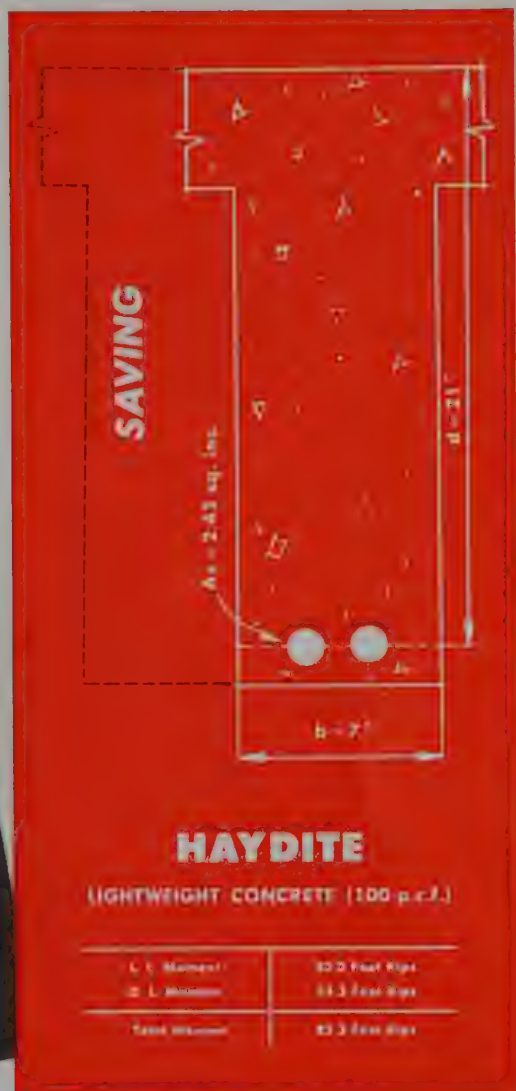
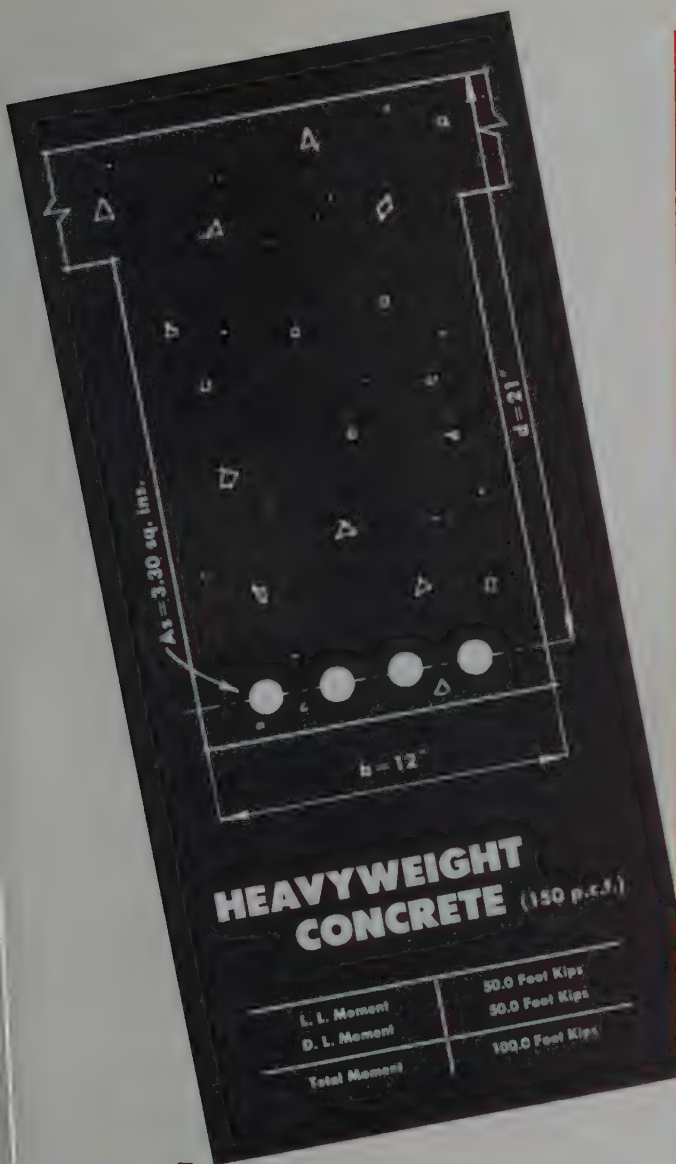
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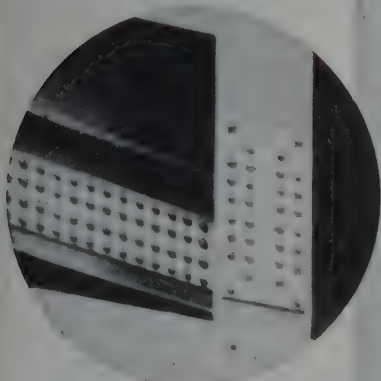
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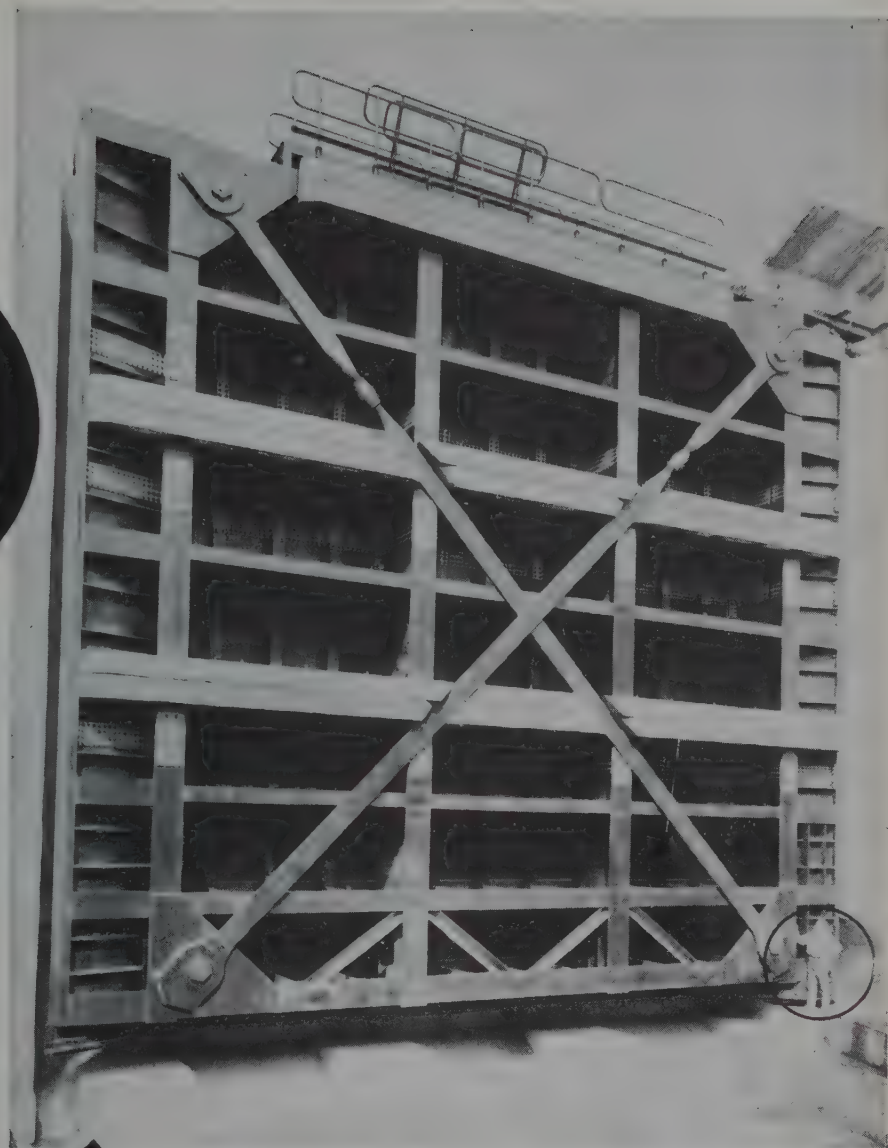
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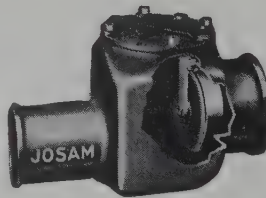
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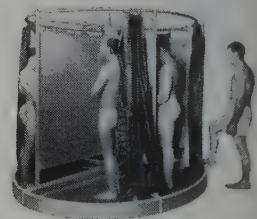
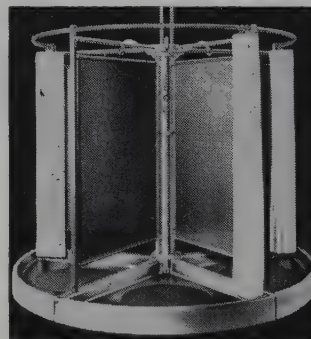
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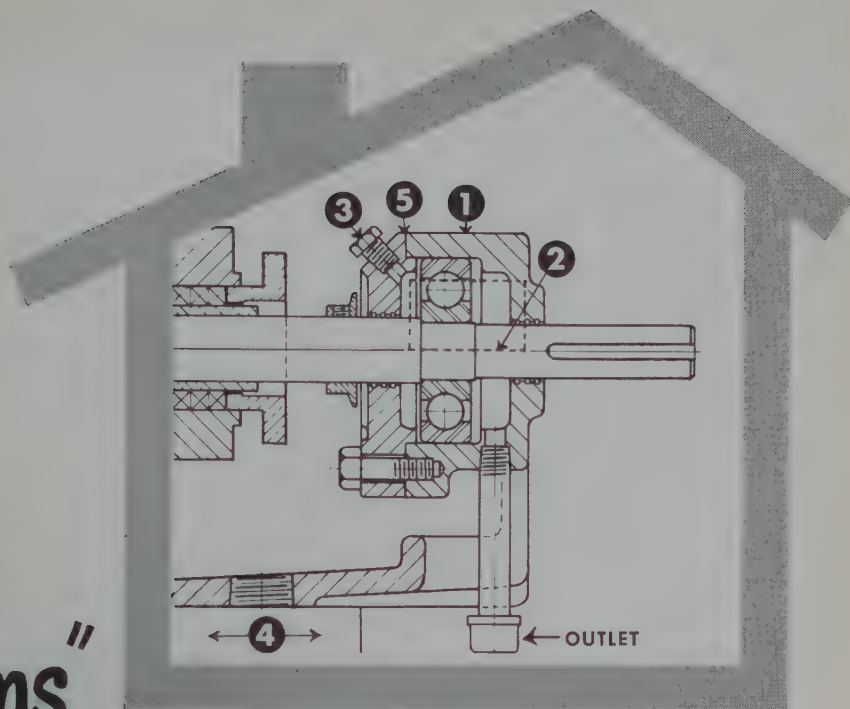
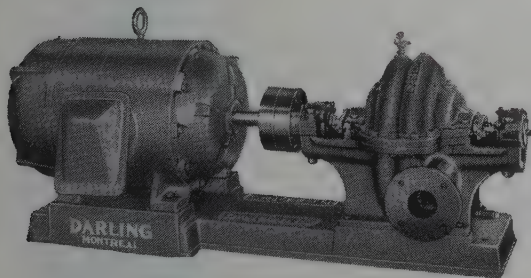
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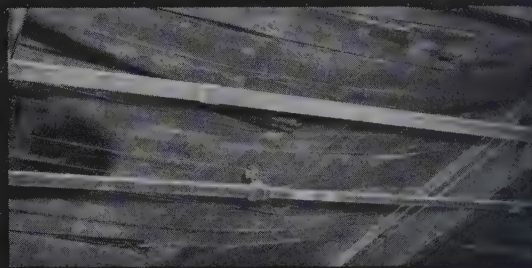
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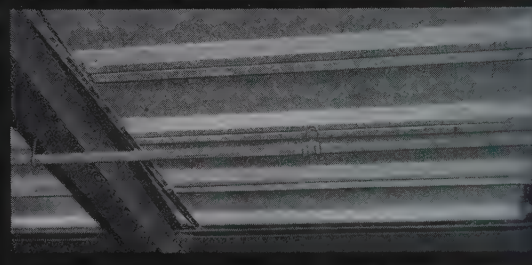
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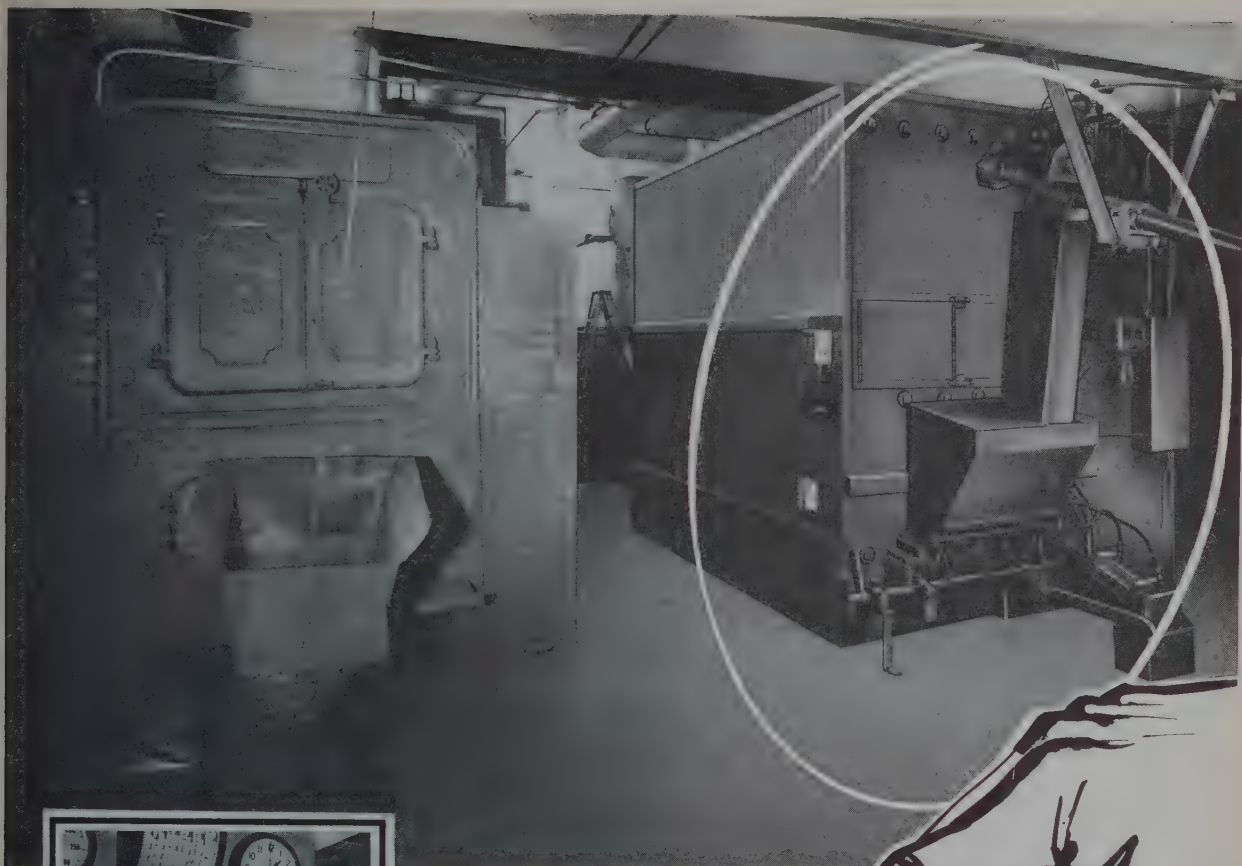
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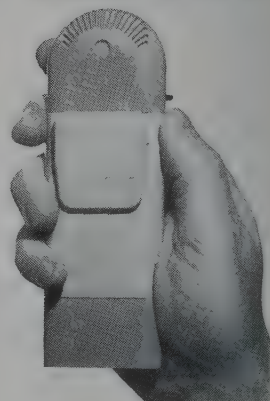
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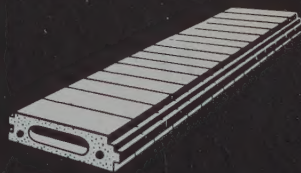
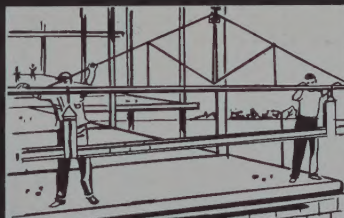
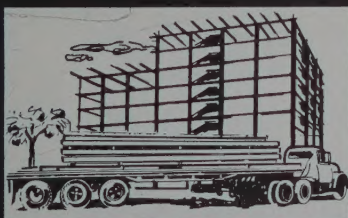
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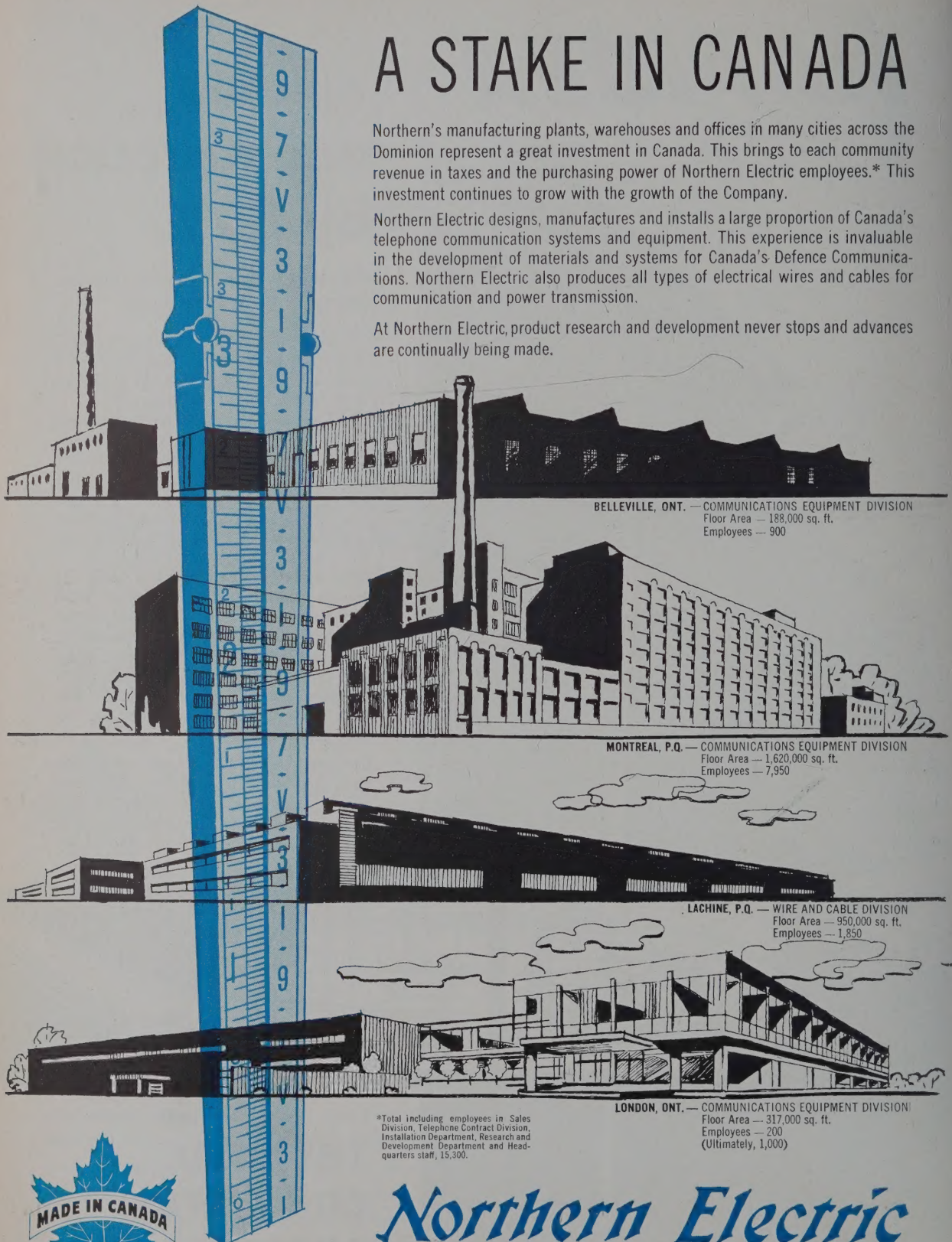
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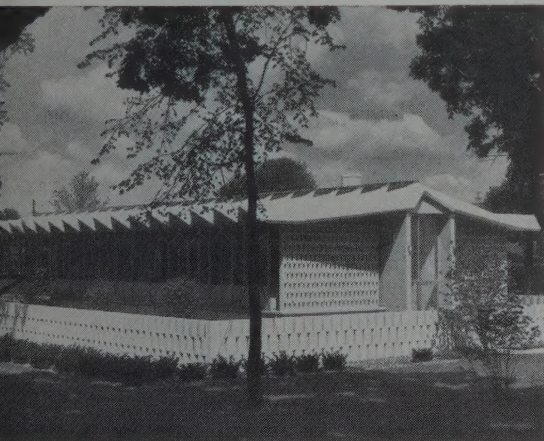
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